

Washington State

# Actuarial Valuation Report **2003**

By the Office of the State Actuary  
Prepared In: December 2004

Report Prepared by

**Office of the State Actuary**

Matthew M. Smith, State Actuary

Philip Martin McCaulay, Associate Actuary

Robert Wm. Baker

Kelly Burkhardt

Sandra Granger

Laura Harper

Darren Painter

Jacob Putnam

Christine Ryser

Evan Sent

Christi Steele

Charlene Winner

**Additional assistance provided by**

Department of Printing

Department of Retirement Systems

Office of the State Treasurer

State Investment Board

# Table of Contents

## Letter of Introduction

<b>Section 1 - Summary of Key Results .....</b>	<b>1-5</b>
Contribution Rates .....	1
Contribution Rate-Setting Cycle .....	1
Funding Policy .....	2
Comments on 2003 Results .....	2
Actuarial Liabilities .....	3
Assets .....	3
Funded Status .....	4
Participant Data .....	4
Key Assumptions .....	5
<b>Section 2 - Actuarial Exhibits .....</b>	<b>7-22</b>
Actuarial Certification .....	7
Contribution Rates .....	7
Actuarial Liabilities .....	12
Plan Assets .....	15
Funded Status .....	19
Actuarial Gains/Losses .....	20
Effect of Plan, Assumption and Method Changes .....	22
<b>Section 3 - Participant Data .....</b>	<b>23-28</b>
Overview of System Membership .....	23
Summary of Plan Participants .....	26
<b>Section 4 - Appendices .....</b>	<b>29-88</b>
Actuarial Assumptions and Methods .....	29
Summary of Plan Provisions .....	53
Age/Service Distributions .....	58
Age/Years Retired Distribution .....	70
Historical Data .....	82
Glossary .....	88



## WASHINGTON STATE LEGISLATURE

# Office of the State Actuary

Report of the Combined  
Actuarial Valuation  
As of September 30, 2003  
*December 2004*

As required under Chapter 41.45 RCW, this report documents the results of an actuarial valuation of the following Washington State retirement systems:

- Public Employees Retirement System (PERS);
- Teachers Retirement System (TRS);
- School Employees Retirement System (SERS);
- Law Enforcement Officers and Fire Fighters Retirement System (LEOFF); and
- Washington State Patrol Retirement System (WSP).

The primary purpose of this valuation is to determine contribution requirements for the systems listed above for the plan year ending September 30, 2003. The report is organized in the following four sections:

- Summary of Key Results
- Actuarial Exhibits
- Participant Data
- Appendices

The Summary of Key Results section provides a high-level executive summary of the valuation results for all systems combined. The remaining sections of the report provide detailed actuarial asset and liability information for each system and plan separately. The Appendix provides a summary of the principal actuarial assumptions and methods, summary of the major plan provisions, age-service distributions, historical data and a glossary of actuarial terms used throughout this report.

We encourage you to submit any questions you might have concerning this report to our regular or e-mail address below. We also invite you to visit our web site (<http://osa.leg.wa.gov>) for further information regarding the actuarial funding of the Washington State retirement systems.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew M. Smith".

Matthew M. Smith  
State Actuary

2420 Bristol Court S.W., Suite 101  
P.O. Box 40914

Olympia, WA 98504-0914  
(360) 753-9144

FAX: (360) 586-8135  
TDD: 1-800-635-9993

E-MAIL: [actuary\\_st@leg.wa.gov](mailto:actuary_st@leg.wa.gov)

# Summary of Key Results

$$L = \frac{1}{4} = \log_{10} 28' - 22.9290 - 29.2539 + 0.0684649 + 2$$

For the golden core  $N = 17$  we have

$$\text{golden distance } (q) = r'; \cos \frac{1}{2}v', \text{ or}$$

the ~~effigies~~ we have

$$\begin{aligned} \log \cos \frac{1}{2}v' &= 25.654 \\ \log r' &= 25.13680 \\ \log c - 16 &= 16 - 0.070869430 \end{aligned}$$

$$qE = 18^9.6960002$$

$$cCD = 1,$$

$$P = \frac{1}{2},$$

$$v' - u' = 26.$$

# SUMMARY OF KEY RESULTS

---

## Contribution Rates

Member and employer contribution rates determined from the actuarial valuation are expressed as a percentage of salary and summarized below along with comparable rates from the previous valuation. See the Actuarial Exhibits section of this report for the development of these rates.

Contribution Rates				
	Plan 1		Plan 2/3	
	2003	2002	2003	2002
<b>PERS</b>				
Member*	6.00%	6.00%	3.38%	2.63%
Total Employer	5.73%	3.78%	5.73%	3.78%
<b>TRS</b>				
Member*	6.00%	6.00%	2.48%	1.71%
Total Employer**	6.74%	3.19%	6.74%	3.19%
<b>SERS</b>				
Member*	N/A	N/A	3.51%	2.49%
Total Employer	N/A	N/A	7.56%	3.64%
<b>LEOFF</b>				
Member	0.00%	0.00%	7.20%	6.41%
Employer	0.00%	0.00%	4.32%	3.84%
Total State	0.00%	0.00%	2.88%	2.57%
<b>WSP</b>				
Member	4.51%	2.00%	4.51%	N/A
Employer (State)	4.51%	0.00%	4.51%	N/A

\*Plan 3 members do not contribute to the defined benefit plan

\*\*The TRS total employer rate for 2003 includes an additional 0.01%

for the non-automatic post-retirement benefit increase provided  
under Chapter 85, Laws of 2004.

## Contribution Rate-Setting Cycle

Under current Washington State law, in September of even-numbered years, the Pension Funding Council created under RCW 41.45.100 reviews the basic contribution rates recommended by the State Actuary based on an actuarial valuation performed on asset, participant and plan information compiled in odd-numbered years. The Pension Funding Council may adopt changes to economic assumptions and contribution rates by an affirmative vote of at least four members. The basic rates adopted by the Pension Funding Council will remain in place for the ensuing biennium, subject to revision by the Legislature.

RCW 41.45.070 requires that a temporary and supplemental contribution rate increase be charged to fund the cost of benefit enhancements that are enacted following the adoption of the basic rates by the Pension Funding Council. Supplemental contribution rates are included in the basic rates at the beginning of the next contribution rate-setting cycle.

## Funding Policy

The funding policy of the Legislature is contained in Chapter 41.45 RCW - Actuarial Funding of State Retirement Systems. RCW 41.45.010 outlines the intent to achieve the following goals:

- To provide a dependable and systematic process for funding the benefits to members and retirees of the Washington State Retirement Systems;
- To continue to fully fund the retirement system plans 2 and 3, and the Washington State Patrol Retirement System, as provided by law;
- To fully amortize the total cost of PERS 1, TRS 1 and LEOFF 1, not later than June 30, 2024;
- To establish predictable long-term employer contribution rates which will remain a relatively constant proportion of the future state budgets; and
- To fund, to the extent feasible, benefit increases over the working lives of those members so that the cost of those benefits are paid by the taxpayers who receive the benefit of those members' service.

Although not codified in law as a policy, the Legislature has established an additional funding policy through consistent legislative practice over time:

- Employers are charged the same contribution rate, regardless of the plan in which employees hold membership (except for LEOFF).

## Comments on 2003 Results

Short-term actuarial gains or losses occur when actual economic and demographic experience differs from what was assumed in the valuation. Actuarial gains will reduce contribution rates; whereas, actuarial losses will increase contribution rates. Under a reasonable set of actuarial assumptions and methods, actuarial gains and losses will offset over long-term experience periods.

Significant changes in plan provisions or actuarial assumptions and methods will also have an impact on contribution rates. Significant factors that impacted the results of this valuation include the following:

- The actual rate of investment return for the plan year was above the assumed rate of 8%. Actual investment return was 14.67% (time weighted).
- The recognition of liability associated with future gain-sharing benefits generated an actuarial loss (method change)
- New entrants continue to exert a modest upward adjustment on current contribution rates; and
- A significant gain or loss can occur when actual salary experience is different from what is assumed. Actual experience for 2003 varied by system and plan.

Please see the table, Actuarial Gains/Losses, in the Actuarial Exhibit section of this report for detailed gain and loss information by each individual system.

## **Actuarial Liabilities**

A summary of key measures of actuarial liability is shown below along with comparable information from last year's valuation. See the Actuarial Exhibits section of this report for a summary of actuarial liability by each individual system and plan. See the Glossary for a brief explanation of the actuarial terms.

<b>Actuarial Liabilities</b>		
(Dollars in millions)	2003	2002
All Systems		
Present Value of Fully Projected Benefits	\$55,074	\$51,126
Unfunded Actuarial Accrued Liability*	3,575	1,222
Present Value of Credited Projected Benefits	40,985	37,757
Valuation Interest Rate	8.00%	8.00%

\*For PERS 1, TRS 1 and LEOFF 1 at 9/30/2003

## **Assets**

The combined market value of assets and actuarial (or smoothed) value of assets are shown below along with approximate rates of investment return. See the Actuarial Exhibits section of this report for a summary of assets by each individual system and plan as well as the development of the actuarial value of assets.

<b>Assets</b>		
(Dollars in millions)	2003	2002
All Systems		
Market Value of Assets	\$37,732	\$34,224
Actuarial Value of Assets	43,858	44,573
Contributions*	378	436
Disbursements	1,940	2,007
Investment Return	5,057	(2,258)
Other**	13	(417)
Rate of Return on Assets	14.67%	(6.50%)

\*Employee and Employer

\*\*Includes transfers, restorations, payables, etc.

## Funded Status

Several key measures of the combined systems' funded status are displayed below. Assets from an individual qualified retirement plan may not be used to fund benefits from another plan. This table, therefore, is provided for summarization purposes only. See the Actuarial Exhibits section of this report for a summary of funded status by each individual system and plan.

<b>Funded Status</b>		
(Dollars in millions)	2003	2002
<b>All Systems</b>		
a. Present Value of Credited Projected Benefits	\$40,985	\$37,757
b. Actuarial Value of Assets	43,858	44,573
c. Unfunded Liability (a-b)	(2,873)	(6,816)
d. Credited Projected Funded Ratio (b/a)	107%	118%

## Participant Data

Participant data used in the actuarial valuation for the plan year ending September 30, 2003 are summarized below along with comparable information from last year's valuation. See the Participant Data section of this report for participant data summarized by each individual system and plan.

<b>Participant Data</b>		
All Systems	2003	2002
<b>Active Members</b>		
Number	286,469	286,232
Total Salaries (in millions)	\$12,527	\$12,079
Average Annual Salary	\$43,726	\$42,195
Average Attained Age	45.3	44.9
Average Service	10.3	10.0
<b>Retirees and Beneficiaries</b>		
Number	110,706	107,581
Average Annual Benefit	\$16,629	\$15,964
<b>Terminated Members</b>		
Number Vested	30,594	28,585
Number "Non-Vested"	95,845	94,150

## Key Assumptions

Key economic assumptions used in the actuarial valuation are displayed below. These assumptions were unchanged from the previous year's valuation. See the Appendix - Actuarial Assumptions and Methods for a detailed listing of the actuarial assumptions used in this valuation.

Key Assumptions	
<b>All Systems</b>	
Valuation Interest Rate	8.00%
Salary Increase	4.50%
Inflation	3.50%
Growth in Membership*	1.25%

\*0.90% in TRS



# Actuarial Exhibits

$v = 4 = \log_{10} 28' - 22929 \frac{29^{\circ} 253''}{.5} + 0.0684649 + 2$

For the golden core  $N = 17$  we have  $N = 22929 - 2292 = 4$

the golden number we have  $N = 17$ . The distance  $(q) = r'$ ;  $\cos \frac{1}{2}v'$ , or

log. cos.  $\frac{1}{2}v'$  we have  $\log r'$

$$\log \frac{1}{2}v' = \frac{1}{2} \log \frac{N-1}{N} = \frac{1}{2} \log \frac{16-1}{16+1} = \frac{1}{2} \log \frac{15}{17}$$

$$\log r' = \frac{1}{2} \log \frac{15}{17} = \frac{1}{2} \log \frac{0.4966525}{1.189696002}$$

$$E = \frac{2}{P} = \frac{2}{\frac{1}{2} \log \frac{15}{17}} = 2$$

$$CD = 1,$$

$$V =$$

$$Y =$$

$$X =$$

$$Z =$$

$$W =$$

$$U =$$

# **ACTUARIAL EXHIBITS**

---

## **Actuarial Certification**

This report documents the results of an actuarial valuation of the retirement plans defined under Chapters 41.26, 41.32, 41.35, 41.40 and 43.43 of the Revised Code of Washington. The primary purpose of this valuation is to determine contribution requirements for the systems listed above as of the valuation date September 30, 2003 and should not be used for other purposes.

The valuation results summarized in this report involve calculations that require assumptions about future economic and demographic events. We believe that the assumptions and methods used in the underlying valuation are reasonable and appropriate for the primary purpose stated above. The use of another set of assumptions and methods, however, could also be reasonable and could result in materially different results.

The assumptions used in the valuations for investment return, inflation, salary and membership growth were prescribed by the Legislature in 2001. Demographic assumptions were developed from the 1995-2000 experience study performed by the Office of the State Actuary. The Legislature was responsible for the selection of the actuarial cost and asset valuation methods. In our opinion, all methods, assumptions and calculations are reasonable and are in conformity with generally accepted actuarial principles and standards as of the date of this publication.

The Department of Retirement Systems provided member and beneficiary data. We have checked the data for reasonableness as appropriate based on the purpose of the valuation. The State Investment Board, Department of Retirement Systems and the State Treasurer provided financial and asset information. An audit of the financial and participant data was not performed. We have relied on all the information provided as complete and accurate. In our opinion, this information is adequate and substantially complete for purposes of this valuation.

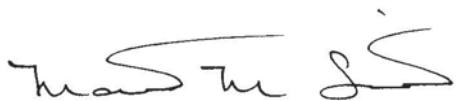
By law, the unfunded actuarial accrued liability (UAAL) in PERS and TRS Plans 1 must be amortized by June 30, 2024 as a level percentage of projected system payroll. The projected payroll includes pay from PERS, SERS and TRS Plans 2/3 as well as projected payroll from future new members. As a result of this amortization method, dollar contributions to the Plan 1 UAAL will increase steadily as the amortization date approaches.

The asset smoothing method adopted during the 2003 legislative session (Chapter 11, Laws of 2003, E1) was intended to address the volatility of contribution rates under the aggregate funding method when used in combination with the existing asset allocation policy. The combination of the current asset smoothing method with any other funding method or asset allocation policy may not be appropriate.

## Actuarial Exhibits

---

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.



Matthew M. Smith, EA, MAAA  
State Actuary



Philip Martin McCaulay, FSA, MAAA  
Associate Actuary

## Contribution Rates

Member and Employer Rate Summary				
	Plan 1		Plan 2/3	
	2003	2002	2003	2002
<b>PERS</b>				
Member *	6.00%	6.00%	3.38%	2.63%
Employer (Normal Cost)	3.63%	2.63%	3.63%	2.63%
Employer (Plan 1 UAAL)	2.10%	1.15%	2.10%	1.15%
Total Employer	5.73%	3.78%	5.73%	3.78%
<b>TRS</b>				
Member *	6.00%	6.00%	2.48%	1.71%
Employer (Normal Cost)	3.94%	1.98%	3.94%	1.98%
Employer (Plan 1 UAAL)**	2.80%	1.21%	2.80%	1.21%
Total Employer	6.74%	3.19%	6.74%	3.19%
<b>SERS</b>				
Member *	N/A	N/A	3.51%	2.49%
Employer (Normal Cost)	N/A	N/A	5.46%	2.49%
Employer (PERS Plan 1 UAAL)	N/A	N/A	2.10%	1.15%
Total Employer	N/A	N/A	7.56%	3.64%
<b>LEOFF</b>				
Member	0.00%	0.00%	7.20%	6.41%
Employer	0.00%	0.00%	4.32%	3.84%
State (Normal Cost)	0.00%	0.00%	2.88%	2.57%
State (Plan 1 UAAL)	0.00%	0.00%	0.00%	0.00%
Total State	0.00%	0.00%	2.88%	2.57%
<b>WSP</b>				
Member	4.51%	2.00%	4.51%	N/A
Employer (State)	4.51%	0.00%	4.51%	N/A

\*Plan 3 members do not contribute to the defined benefit plan

\*\*The TRS 1 UAAL rate for 2003 includes an additional 0.01% for the non-automatic

post-retirement benefit increase provided under Chapter 85, Laws of 2004.

### Development of Employer/State Rates

	PERS		TRS		SERS		LEOFF		WSP	
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 1	Plan 2			
a. Total Normal Cost	9.63%	7.01%	9.94%	6.42%	8.97%	0.00%	14.40%	9.02%		
b. Employee Normal Cost*	6.00%	3.38%	6.00%	2.48%	3.51%	0.00%	7.20%	4.51%		
c. Employer Contribution (a-b)	3.63%	3.63%	3.94%	3.94%	5.46%	0.00%	7.20%	4.51%		
d. Cost to Amortize UAAL**		2.10%	2.10%	2.80%	2.80%	2.10%	0.00%	0.00%	0.00%	
e. Total Employer Contribution Rate (c+d)***	5.73%	5.73%	6.74%	6.74%	7.56%	0.00%	4.32%	4.51%		

\*Plan 3 members do not contribute to the defined benefit plan

\*\*The TRS cost to amortize UAAL includes an additional 0.01% for the non-automatic post-retirement benefit increase provided under Chapter 85, Laws of 2004.

\*\*\*The state pays 20% of the total normal cost for LEOFF 2. This reduces the total employer contribution rate from 7.20% to 4.32%.

**Development of Normal Cost Rates**

(Dollars in millions)	PERS 2/3	TRS 2/3	SERS 2/3	LEOFF 2	WSP
<b>1. Calculation of Member Rate (Excludes Gain-sharing)</b>					
a. Present Value of Fully Projected Benefits	\$14,159	\$4,876	\$1,979	\$4,379	\$727
b. Valuation Assets	10,842	3,949	1,546	2,740	664
c. Unfunded Fully Projected Benefits (a - b)	3,317	927	433	1,639	63
d. Contributions to 2005	217	68	26	171	2
e. Accumulated Gain-sharing Adjustment	0	73	0	N/A	N/A
f. Adjusted Unfunded (c - d - e)	\$3,100	\$786	\$408	\$1,467	\$61
Present Value of Projected Salaries to Current Members (PVS)					
g. Plan 1 PVS	N/A	N/A	N/A	N/A	\$673
h. Plan 2 PVS	42,466	3,282	3,438	10,221	0
i. Plan 3 PVS	6,681	25,169	4,732	N/A	N/A
j. Weighted PVS ( 2g + 2h + i)	\$91,612	\$31,733	\$11,607	\$20,443	\$1,346
k. Member Normal Cost (f / j)	3.38%	2.48%	3.51%	7.18%	4.51%
l. Change In Plan Provisions (Laws of 2004)	0.00%	0.00%	0.00%	0.02%	0.00%
m. Member Contribution Rate (k + l)	3.38%	2.48%	3.51%	7.20%	4.51%
<b>2. Calculation of Employer Rate (Includes Gain-sharing)</b>					
a. Present Value of Fully Projected Benefits (PVFB)	\$14,159	\$4,876	\$1,979	\$4,379	\$727
b. Present Value of Future Gain Sharing	119	344	159	0	0
c. Total PVFB (a + b)	14,278	5,220	2,138	4,379	727
d. Valuation Assets	10,842	3,949	1,546	2,740	664
e. Unfunded Benefits (c - d)	3,436	1,271	592	1,639	63
f. Contributions to 2005	217	68	26	171	2
g. Adjusted Unfunded (e-f)	3,219	1,203	566	1,467	61
h. Present Value of Member Contributions	1,435	81	121	734	0
i. Employer Responsibility (g - h)	\$1,784	\$1,122	\$446	\$734	\$61
Present Value of Projected Salaries to Current Members (PVS)					
j. Plan 1 PVS	N/A	N/A	N/A	N/A	\$673
k. Plan 2 PVS	42,466	3,282	3,438	10,221	0
l. Plan 3 PVS	6,681	25,169	4,732	N/A	N/A
m. Weighted PVS (j + k + l)	\$49,147	\$28,451	\$8,169	\$10,221	\$673
n. Employer Normal Cost (i / m)	3.63%	3.94%	5.46%	7.18%	4.51%
o. Change In Plan Provisions (Laws of 2004)	0.00%	0.00%	0.00%	0.02%	0.00%
p. Employer Contribution Rate (n + o)	3.63%	3.94%	5.46%	7.20%	4.51%
<b>3. Summary of Rates</b>					
a. Member Contribution Rate (1.m.) <sup>1,2,3</sup>	3.38%	2.48%	3.51%	7.20%	4.51%
b. Employer Contribution Rate (2.p.) <sup>2,3</sup>	3.63%	3.94%	5.46%	4.32%	4.51%
c. State Contribution Rate <sup>2</sup>	0.00%	0.00%	0.00%	2.88%	N/A
d. Total Contribution Rate (a + b + c)	<b>7.01%</b>	<b>6.42%</b>	<b>8.97%</b>	<b>14.40%</b>	<b>9.02%</b>

Note: Totals may not agree due to rounding

<sup>1</sup> Plan 3 members do not contribute to the defined contribution plans.<sup>2</sup> The State pays 40% of the total employer normal cost in LEOFF 2.<sup>3</sup> WSP members pay 50% of normal cost, but not less than 2%. The employer pays the excess, if any.

**Amortization of the Plan 1 Unfunded Actuarial Accrued Liability (UAAL)**

<i>(Dollars in millions)</i>	<b>PERS 1</b>	<b>TRS 1</b>	<b>LEOFF 1</b>
a. Present Value of Fully Projected Benefits (PVFB)	\$12,715	\$10,341	\$4,342
b. Present Value of Future Gain-sharing	504	426	0
c. Total PVFB (a + b)	13,219	10,767	4,342
d. Valuation Assets	10,227	9,086	4,803
e. Actuarial Present Value of Future Normal Costs	372	265	0
f. UAAL (c - d - e)	2,620	1,416	(462)
g. Expected UAAL Contributions to 2005	0	0	0
h. Remaining UAAL (f - g)	\$2,620	\$1,416	(\$462)
i. Amortization Date	6/30/2024	6/30/2024	6/30/2024
J. Present Value of Projected Salaries beyond 2005	\$124,819	\$50,755	\$16,205
K. Contribution Rate to Amortize the Remaining UAAL (h / j)*	2.10%	2.80%	(2.85%)

*Note: Totals may not agree due to rounding*

*\*LEOFF 1 is fully funded so no UAAL contributions are required. The TRS 1 UAAL rate includes an additional 0.01% for the non-automatic post-retirement benefit increase provided under Chapter 85, Laws of 2004.*

## Actuarial Liabilities

Present Value of Fully Projected Benefits						
(Dollars in millions)	PERS			TRS		
	Plan 1	Plan 2/3	Total	Plan 1	Plan 2/3	Total
<b>Active Members</b>						
Retirement	\$4,137	\$11,501	\$15,638	\$3,291	\$4,324	\$7,615
Termination	29	453	482	16	119	135
Death	28	105	133	15	52	67
Disability	34	97	131	10	5	14
Return of Contributions on Termination	15	255	270	1	6	7
Return of Contributions on Death	34	134	168	19	12	31
Portability	8	36	44	10	4	14
Uniform Cola	360	N/A	360	276	N/A	276
<b>Total Active</b>	<b>\$4,644</b>	<b>\$12,582</b>	<b>\$17,227</b>	<b>\$3,638</b>	<b>\$4,522</b>	<b>\$8,160</b>
<b>Inactive Members</b>						
Terminated	\$243	\$716	\$959	\$201	\$202	\$402
Service Retired	6,465	779	7,244	5,419	143	5,562
Disability Retired	108	47	156	93	4	98
Survivors	369	34	403	206	4	210
Uniform Cola	885	N/A	885	784	N/A	784
<b>Total Inactive</b>	<b>\$8,070</b>	<b>\$1,577</b>	<b>\$9,647</b>	<b>\$6,702</b>	<b>\$354</b>	<b>\$7,056</b>
<b>Laws of 2004</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>2003 Total</b>	<b>\$12,715</b>	<b>\$14,159</b>	<b>\$26,874</b>	<b>\$10,341</b>	<b>\$4,876</b>	<b>\$15,217</b>
<b>2002 Total</b>	<b>\$12,532</b>	<b>\$13,093</b>	<b>\$25,625</b>	<b>\$10,209</b>	<b>\$4,422</b>	<b>\$14,631</b>

Note: Totals may not agree due to rounding and exclude gain-sharing

**Present Value of Fully Projected Benefits**

(Continued)

(Dollars in millions)	SERS		LEOFF		WSP
	Plan 2/3	Plan 1	Plan 2	Total	
<b>Active Members</b>					
Retirement	\$1,651	\$409	\$4,020	\$4,429	\$380
Termination	120	1	85	86	2
Death	18	5	11	16	5
Disability	11	207	5	211	0
Return of Contributions on Termination	21	0	80	80	3
Return of Contributions on Death	10	2	38	40	2
Portability	5	0	4	4	0
Uniform Cola	N/A	N/A	N/A	N/A	0
<b>Total Active</b>	<b>\$1,835</b>	<b>\$623</b>	<b>\$4,242</b>	<b>\$4,865</b>	<b>\$392</b>
<b>Inactive Members</b>					
Terminated	\$78	\$8	\$67	\$75	\$3
Service Retired	61	1,306	62	1,368	314
Disability Retired	3	2,029	6	2,034	1
Survivors	1	376	3	378	17
Uniform Cola	N/A	N/A	N/A	N/A	0
<b>Total Inactive</b>	<b>\$144</b>	<b>\$3,719</b>	<b>\$137</b>	<b>\$3,856</b>	<b>\$335</b>
<b>Laws of 2004</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>
<b>2003 Total</b>	<b>\$1,979</b>	<b>\$4,342</b>	<b>\$4,383</b>	<b>\$8,724</b>	<b>\$727</b>
<b>2002 Total</b>	<b>\$1,804</b>	<b>\$4,338</b>	<b>\$4,042</b>	<b>\$8,380</b>	<b>\$686</b>

Note: Totals may not agree due to rounding and exclude gain-sharing

**Present Value of Credited Projected Benefits**

(Dollars in millions)	PERS			TRS		
	Plan 1	Plan 2/3	Total	Plan 1	Plan 2/3	Total
<b>Active Members</b>						
Retirement	\$3,480	\$5,457	\$8,936	\$2,814	\$1,960	\$4,774
Termination	23	247	271	14	61	75
Death	23	52	75	13	24	37
Disability	28	51	80	8	3	11
Return of Contributions on Termination	11	135	146	1	4	5
Return of Contributions on Death	28	70	98	16	7	23
Portability	7	17	24	8	2	11
Uniform Cola	303	N/A	303	236	N/A	236
<b>Total Active</b>	<b>\$3,904</b>	<b>\$6,029</b>	<b>\$9,933</b>	<b>\$3,111</b>	<b>\$2,060</b>	<b>\$5,171</b>
<b>Inactive Members</b>						
Terminated	\$243	\$716	\$959	\$201	\$202	\$402
Service Retired	6,465	779	7,244	5,419	143	5,562
Disability Retired	108	47	156	93	4	98
Survivors	369	34	403	206	4	210
Uniform Cola	885	N/A	885	784	N/A	784
<b>Total Inactive</b>	<b>\$8,070</b>	<b>\$1,577</b>	<b>\$9,647</b>	<b>\$6,702</b>	<b>\$354</b>	<b>\$7,056</b>
<b>Laws of 2004</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>2003 Total</b>	<b>\$11,974</b>	<b>\$7,606</b>	<b>\$19,580</b>	<b>\$9,813</b>	<b>\$2,414</b>	<b>\$12,228</b>
<b>2002 Total</b>	<b>\$11,682</b>	<b>\$6,777</b>	<b>\$18,460</b>	<b>\$9,602</b>	<b>\$2,085</b>	<b>\$11,687</b>

Note: Totals may not agree due to rounding and exclude gain-sharing

**Present Value of Credited Projected Benefits**

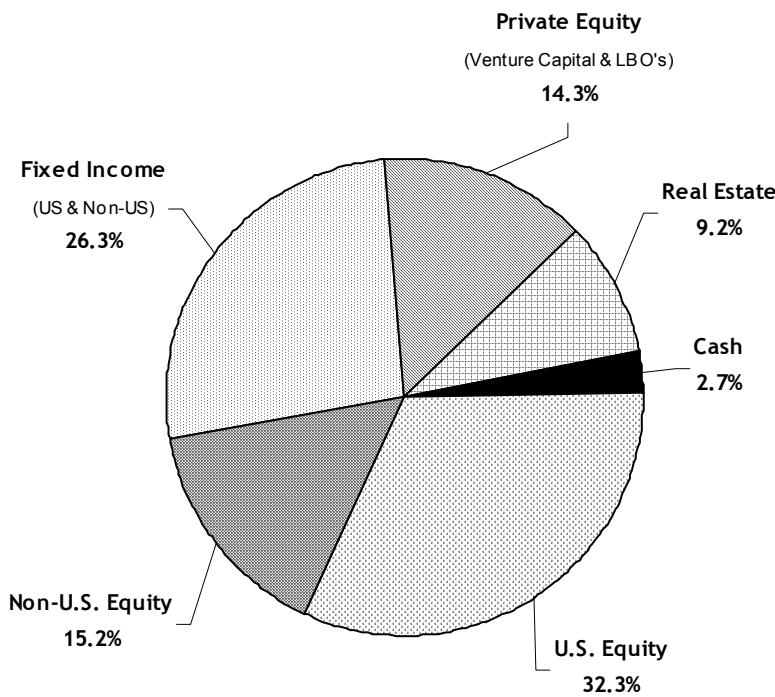
(Continued)

(Dollars in millions)	SERS			LEOFF		WSP
	Plan 2/3	Plan 1	Plan 2	Total		
<b>Active Members</b>						
Retirement	\$808	\$368	\$1,939	\$2,307	\$199	
Termination	65	1	47	47	1	
Death	9	5	5	10	2	
Disability	6	188	2	191	0	
Return of Contributions on Termination	12	0	42	42	1	
Return of Contributions on Death	5	2	19	21	1	
Portability	3	0	2	2	0	
Uniform Cola	N/A	N/A	N/A	N/A	0	
<b>Total Active</b>	<b>\$907</b>	<b>\$563</b>	<b>\$2,057</b>	<b>\$2,620</b>	<b>\$205</b>	
<b>Inactive Members</b>						
Terminated	\$78	\$8	\$65	\$73	\$3	
Service Retired	61	1,306	62	1,368	314	
Disability Retired	3	2,029	6	2,034	1	
Survivors	1	376	3	378	17	
Uniform Cola	N/A	N/A	N/A	N/A	N/A	
<b>Total Inactive</b>	<b>\$144</b>	<b>\$3,719</b>	<b>\$135</b>	<b>\$3,854</b>	<b>\$335</b>	
<b>Laws of 2004</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	
<b>2003 Total</b>	<b>\$1,051</b>	<b>\$4,282</b>	<b>\$2,194</b>	<b>\$6,476</b>	<b>\$540</b>	
<b>2002 Total</b>	<b>\$899</b>	<b>\$4,265</b>	<b>\$1,937</b>	<b>\$6,202</b>	<b>\$508</b>	

Note: Totals may not agree due to rounding and exclude gain-sharing

## Plan Assets

### Retirement Commingled Trust Fund (CTF) Asset Allocation



**Cash:** Money held while being transferred between investments or placed temporarily in an interest-bearing account.

**U.S. Fixed Income:** U.S. Treasury and government bonds; investment-grade corporate bonds; publicly traded mortgage-backed securities; mortgages; asset-backed and convertible securities.

**Non-U.S. Fixed Income:** Foreign government bonds.

**U.S. Equity:** Stock in U.S. companies.

**Non-U.S. Equity:** Stock in foreign companies.

**Venture Capital:** Equity financing of early expansion and later-stage growth of small businesses.

**Leveraged Buy-outs (LBOs):** The purchase of all assets or stock in a company using borrowed funds.

**Real Estate:** Office and retail space; apartments; warehouses; hotels; etc.

**Change in Market Value of Assets**

(Dollars in millions)	PERS						TRS					
	Plan 1			Plan 2/3			Plan 1			Plan 2/3		
	Fund 631	Fund 641	Total	Fund 632	Fund 642	Total	Fund 631	Fund 641	Total	Fund 632	Fund 642	Total
<b>2002 Market Value</b>	<b>\$8,236</b>	<b>\$8,246</b>	<b>\$16,481</b>	<b>\$6,962</b>	<b>\$2,877</b>	<b>\$9,839</b>						
<b>Revenue</b>												
Contributions												
Employee	61	40	101	46	1	47						
Employer/State	47	44	91	19	19	38						
Total Contributions	108	85	192	65	20	85						
Investment Return	1,178	1,280	2,458	996	433	1,429						
Restorations	5	2	7	2	0	2						
Transfers In	0	0	1	0	0	0						
Miscellaneous	0	0	0	0	0	0						
<b>Total Revenue</b>	<b>\$1,291</b>	<b>\$1,367</b>	<b>\$2,658</b>	<b>\$1,063</b>	<b>\$453</b>	<b>\$1,516</b>						
<b>Disbursements</b>												
Withdrawn Annuities												
Monthly Benefits	\$790	\$76	\$866	\$665	\$12	\$677						
Refunds	6	28	33	2	3	5						
Total Benefits	796	104	899	667	15	681						
Transfers Out*	0	48	48	0	1	1						
Expenses	0	0	1	0	0	0						
<b>Total Disbursements</b>	<b>\$796</b>	<b>\$152</b>	<b>\$948</b>	<b>\$667</b>	<b>\$15</b>	<b>\$682</b>						
<b>Payables</b>												
	\$0	\$0	\$0	\$0	\$0	\$0						
<b>2003 Market Value</b>	<b>\$8,730</b>	<b>\$9,461</b>	<b>\$18,191</b>	<b>\$7,358</b>	<b>\$3,315</b>	<b>\$10,673</b>						
<b>2003 Actuarial Value</b>	<b>\$10,227</b>	<b>\$10,842</b>	<b>\$21,070</b>	<b>\$9,086</b>	<b>\$3,949</b>	<b>\$13,035</b>						
<b>Ratio</b>	<b>117%</b>	<b>115%</b>	<b>116%</b>	<b>123%</b>	<b>119%</b>	<b>122%</b>						

Note: Totals may not agree due to rounding

\*PERS 2 value includes \$480 million actual transfers, less \$431 million shown as payables for 2002.

**Change in Market Value of Assets**

(Continued)

(Dollars in millions)	SERS		LEOFF		WSP Fund 615
	Plan 2/3 Fund 633	Plan 1 Fund 819	Plan 2 Fund 829	Total	
<b>2002 Market Value</b>	<b>\$1,157</b>	<b>\$4,060</b>	<b>\$2,136</b>	<b>\$6,196</b>	<b>\$551</b>
<b>Revenue</b>					
Contributions					
Employee	2	0	44	44	1
Employer/State	10	0	44	44	0
Total Contributions	12	0	88	88	1
Investment Return	176	587	327	914	81
Restorations	0	0	0	0	0
Transfers In	2	0	0	0	0
Miscellaneous	0	0	0	0	0
<b>Total Revenue</b>	<b>\$190</b>	<b>\$587</b>	<b>\$415</b>	<b>\$1,002</b>	<b>\$82</b>
<b>Disbursements</b>					
Withdrawn Annuities					
Monthly Benefits	5	267	4	271	24
Refunds	2	0	6	6	0
Total Benefits	7	267	10	277	25
Transfers Out	0	0	0	0	0
Expenses	0	0	0	0	0
<b>Total Disbursements</b>	<b>\$8</b>	<b>\$267</b>	<b>\$10</b>	<b>\$278</b>	<b>\$25</b>
<b>Payables</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>2003 Market Value</b>	<b>\$1,339</b>	<b>\$4,380</b>	<b>\$2,541</b>	<b>\$6,921</b>	<b>\$608</b>
<b>2003 Actuarial Value</b>	<b>\$1,546</b>	<b>\$4,803</b>	<b>\$2,740</b>	<b>\$7,544</b>	<b>\$664</b>
<b>Ratio</b>	<b>115%</b>	<b>110%</b>	<b>108%</b>	<b>109%</b>	<b>109%</b>

Note: Totals may not agree due to rounding

**Calculation of Actuarial Value of Assets**

(Dollars in Millions)	Investment Gain/(Loss) for Prior Year							
	PERS 1	PERS 2/3*	TRS 1	TRS 2/3*	SERS 2/3*	LEOFF 1	LEOFF 2	WSP
a. 2002 Market Value (at SIB)	\$ 8,230	\$ 8,778	\$ 6,956	\$ 2,875	\$ 1,156	\$ 4,059	\$ 2,131	\$ 550
b. Total Cash Flow	(683)	(606)	(600)	3	7	(267)	75	(23)
c. 2003 Market Value (at SIB)	8,726	9,453	7,353	3,312	1,339	4,379	2,533	608
d. Actual return (c-b-a)	\$ 1,179	\$ 1,281	\$ 997	\$ 433	\$ 175	\$ 588	\$ 327	\$ 81
e. Weighted asset amount	\$ 7,875	\$ 8,508	\$ 6,658	\$ 2,869	\$ 1,158	\$ 3,916	\$ 2,163	\$ 537
f. Expected return (8%xe)	630	681	533	229	93	313	173	43
g. Investment Gain/(Loss) for Prior Year (d-f)	549	601	465	204	82	274	154	38
h. Dollar weighted rate of return	14.97%	15.05%	14.97%	15.11%	15.12%	15.00%	15.13%	15.03%

Note: Totals may not agree due to rounding

\*Defined Benefit portion only

**Actuarial Value of Assets as of September 30, 2003**

	PERS 1	PERS 2/3*	TRS 1	TRS 2/3*	SERS 2/3*
a. Market Value at 9/30/2003	\$8,730	\$9,461	\$7,358	\$3,315	\$1,339
b. Deferred Investment Gains and (Losses)					
<u>Plan Year Ending</u>	<u>Percent Deferred</u>				
9/30/2003	85.7, 87.5%**	471	506	398	178
9/30/2002	75.0%	(938)	(938)	(794)	(325)
9/30/2001	62.50%	(1,029)	(950)	(1,332)	(487)
Total		(1,497)	(1,382)	(1,728)	(634)
c. Actuarial Value of Assets (a-b)	<b>\$10,227</b>	<b>\$10,842</b>	<b>\$9,086</b>	<b>\$3,949</b>	<b>\$1,546</b>

*Note: Totals may not agree due to rounding**\*Defined Benefit portion only**\*\*Plan 1 = 85.7% deferred; Plan 2/3 = 87.5% deferred.***Actuarial Value of Assets as of September 30, 2003***(Continued)*

	LEOFF 1	LEOFF 2	WSP
a. Market Value at 9/30/2003	\$4,380	\$2,541	\$608
b. Deferred Investment Gains and (Losses)			
<u>Plan Year Ending</u>	<u>Percent Deferred</u>		
9/30/2003	87.5%	240	135
9/30/2002	75.0%	(462)	(240)
9/30/2001	25.0%	(201)	(95)
Total		(423)	(200)
c. Actuarial Value of Assets (a-b)	<b>\$4,803</b>	<b>\$2,740</b>	<b>\$664</b>

*Note: Totals may not agree due to rounding*

## Funded Status

(Dollars in millions)	Development of Funded Ratio							
	PERS		TRS		SERS		LEOFF	
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 2/3	Plan 1	Plan 2	WSP
Credited Projected Liability	\$12,431	\$7,658	\$10,207	\$2,552	\$1,121	\$4,282	\$2,194	\$540
Valuation Assets	\$10,227	\$10,842	\$9,086	\$3,949	\$1,546	\$4,803	\$2,740	\$664
Unfunded Liability	\$2,204	(\$3,184)	\$1,121	(\$1,397)	(\$425)	(\$521)	(\$547)	(\$124)
Funded Ratio:								
2003 *	82%	142%	89%	155%	138%	112%	125%	123%
2002 *	92%	158%	98%	182%	169%	119%	137%	135%
2001 *	97%	179%	100%	197%	197%	129%	154%	147%
2000 *	98%	190%	100%	196%	170%	136%	161%	152%
1999	93%	189%	93%	188%	N/A	125%	154%	159%
1998	86%	191%	86%	185%	N/A	117%	160%	147%
1997 *	83%	187%	82%	181%	N/A	108%	155%	140%
1996	73%	157%	70%	144%	N/A	89%	130%	128%
1995	68%	150%	65%	136%	N/A	80%	126%	119%
1994 *	67%	142%	65%	130%	N/A	68%	124%	110%
1993	70%	142%	62%	126%	N/A	68%	127%	110%
1992	67%	139%	59%	127%	N/A	65%	128%	108%
1991	67%	149%	59%	131%	N/A	66%	154%	106%
1990	66%	154%	60%	140%	N/A	65%	153%	105%
1989 *	65%	162%	58%	144%	N/A	65%	158%	103%
1988	66%	165%	59%	143%	N/A	66%	153%	102%
1987	71%	175%	58%	135%	N/A	69%	157%	95%
1986	63%	162%	50%	125%	N/A	57%	142%	87%

Note: Totals may not agree due to rounding.

\*Assumption and/or method change

## Actuarial Gains/Losses

### Change in Employer and State Contribution Rate by Source

	PERS*	TRS*	SERS**	LEOFF***	WSP
<b>Change in Employer Rate</b>					
<b>2002 Contribution Rate</b>	<b>3.78%</b>	<b>3.19%</b>	<b>3.64%</b>	<b>(2.47%)</b>	<b>(3.03%)</b>
Laws of 2004	0.00%	0.00%	0.00%	0.00%	0.00%
<b>2002 Adjusted Contribution Rate</b>	<b>3.78%</b>	<b>3.19%</b>	<b>3.64%</b>	<b>(2.47%)</b>	<b>(3.03%)</b>
Economic Gains/Losses	1.42%	1.75%	1.16%	2.48%	4.47%
Demographic Gains/Losses	(0.01%)	(0.21%)	(0.18%)	0.00%	0.03%
Other Gains/Losses	(0.11%)	(0.01%)	0.59%	0.01%	3.04%
<b>Total Change</b>	<b>1.30%</b>	<b>1.53%</b>	<b>1.57%</b>	<b>2.49%</b>	<b>7.54%</b>
<b>2003 Preliminary Contribution Rate</b>	<b>5.08%</b>	<b>4.72%</b>	<b>5.21%</b>	<b>0.02%</b>	<b>4.51%</b>
Laws of 2004	0.00%	0.01%	0.00%	0.01%	0.00%
<b>2003 Contribution Rate</b>	<b>5.08%</b>	<b>4.73%</b>	<b>5.21%</b>	<b>0.03%</b>	<b>4.51%</b>
Additional Rate to Prefund Gain Sharing	0.65%	2.01%	2.35%	N/A	N/A
<b>Contribution Rate Including Prefund Gain Sharing</b>	<b>5.73%</b>	<b>6.74%</b>	<b>7.56%</b>	<b>0.03%</b>	<b>4.51%</b>

\*The adjusted PERS and TRS Plan 1 UAAL rates would be applicable after the 03-05 UAAL contribution holiday

\*\*The SERS rate includes the UAAL rate for PERS Plan 1

\*\*\*The LEOFF contribution rate is the State's portion for Plan 2 (20% of the Normal Cost) plus the UAAL rate for Plan 1

**Change in Employer and State Contribution Rate by Source**

(Continued)

	PERS*	TRS*	SERS**	LEOFF***	WSP
<b>Change in Normal Costs</b>					
2002 Normal Cost	<b>2.63%</b>	<b>1.98%</b>	<b>2.49%</b>	<b>2.57%</b>	(3.03%)
Laws of 2004	0.00%	0.00%	0.00%	0.00%	0.00%
<b>2002 Adjusted Normal Cost</b>					
Assets	0.88%	0.50%	0.87%	0.39%	4.13%
Salaries	(0.21%)	0.00%	(0.04%)	(0.15%)	(0.85%)
Growth	0.26%	0.45%	0.33%	0.13%	1.19%
Economic Gains/Losses	0.93%	0.95%	1.16%	0.37%	4.47%
Termination/Return to Work	(0.04%)	(0.20%)	(0.21%)	(0.02%)	0.07%
Retirement	0.02%	0.03%	0.03%	0.01%	(0.04%)
Demographic Gains/Losses	(0.02%)	(0.17%)	(0.18%)	(0.01%)	0.03%
Other Gains/Losses	(0.16%)	(0.03%)	0.04%	(0.06%)	3.04%
Total Change	0.75%	0.75%	1.02%	0.30%	7.54%
<b>2003 Preliminary Normal Cost</b>					
Laws of 2004	3.38%	2.73%	3.51%	2.87%	4.51%
0.00%	0.00%	0.00%	0.01%	0.00%	
<b>2003 Normal Cost</b>					
Additional Rate to Prefund Gain Sharing	3.38%	2.73%	3.51%	2.88%	4.51%
Normal Cost Rate Including Prefund Gain Sharing	0.25%	1.21%	1.95%	N/A	N/A
	<b>3.63%</b>	<b>3.94%</b>	<b>5.46%</b>	<b>2.88%</b>	<b>4.51%</b>
<b>Change in UAAL Rate</b>					
<b>2002 UAAL Rate</b>					
Laws of 2004	1.15%	1.21%	1.15%	(5.04%)	N/A
0.00%	0.00%	0.00%	0.00%	0.00%	N/A
<b>2002 Adjusted UAAL Rate</b>					
Assets	1.15%	1.21%	1.15%	(5.04%)	N/A
Salaries	0.53%	0.79%	N/A	2.60%	N/A
Growth	(0.07%)	0.00%	N/A	(0.11%)	N/A
Inflation (CPI)	0.03%	0.01%	N/A	0.00%	N/A
Economic Gains/Losses	0.00%	0.00%	N/A	(0.38%)	N/A
Termination/Return to Work	0.49%	0.80%	N/A	2.11%	N/A
Retirement	0.00%	(0.01%)	N/A	0.00%	N/A
Demographic Gains/Losses	0.01%	(0.04%)	N/A	0.01%	N/A
Other Gains/Losses	0.05%	0.02%	0.55%	0.07%	N/A
Total Change	0.55%	0.78%	0.55%	2.19%	N/A
<b>2003 Preliminary UAAL Rate</b>					
Laws of 2004	1.70%	1.99%	N/A	(2.85%)	N/A
0.00%	0.01%	N/A	0.00%	0.00%	N/A
<b>2003 UAAL Rate</b>					
Additional Rate to Prefund Gain Sharing	1.70%	2.00%	1.70%	(2.85%)	N/A
UAAL Rate Including Prefund Gain Sharing	0.40%	0.80%	0.40%	N/A	N/A
	<b>2.10%</b>	<b>2.80%</b>	<b>2.10%</b>	<b>(2.85%)</b>	<b>N/A</b>

\*The adjusted PERS and TRS Plan 1 UAAL rates would be applicable after the 03-05 UAAL contribution holiday

\*\*The SERS rate includes the UAAL rate for PERS Plan 1

\*\*\*The LEOFF contribution rate is the State's portion for Plan 2 (20% of the Normal Cost) plus the UAAL rate for Plan 1

## Effect of Plan, Assumption and Method Changes

In addition to experience gains or losses, significant changes in plan provisions or actuarial assumptions and methods will also have an impact on contribution rates.

### Plan Changes:

- HB 2418 (Chapter 4, Laws of 2004)
- HB 2419 (Chapter 5, Laws of 2004)
- SHB 2538 (Chapter 85, Laws of 2004)

### Assumption Changes:

None.

### Method Changes:

Gain-sharing benefits and asset valuation method (see Appendix).

The table below shows the combined effect of all 2004 pension legislation and method changes.

Effect of Plan, Assumption and Method Changes								
	PERS 1	PERS 2/3	TRS 1	TRS 2/3	SERS 2/3	LEOFF 1	LEOFF 2	WSP
<b>*Before Changes</b>								
Present Value of Fully Projected Benefits	\$12,715	\$14,159	\$10,341	\$4,876	\$1,979	\$4,342	\$4,379	\$727
Present Value of Credited Projected Benefits	11,974	7,606	9,813	2,414	1,051	4,282	2,192	540
Actuarial Value of Assets	10,227	10,842	9,086	3,949	1,546	4,803	2,740	664
Unfunded Liability	1,747	(3,236)	727	(1,535)	(495)	(521)	(549)	(124)
Employer Contribution Rate	<b>5.08%</b>	<b>5.08%</b>	<b>4.72%</b>	<b>4.72%</b>	<b>5.21%</b>	<b>0.00%</b>	<b>2.87%</b>	<b>4.51%</b>
<b>After Changes</b>								
Present Value of Fully Projected Benefits	\$13,219	\$14,278	\$10,767	\$5,220	\$2,138	\$4,342	\$4,383	\$727
Present Value of Credited Projected Benefits	12,431	7,658	10,207	2,552	1,121	4,282	2,194	540
Actuarial Value of Assets	10,227	10,842	9,086	3,949	1,546	4,803	2,740	664
Unfunded Liability	2,204	(3,184)	1,121	(1,397)	(425)	(521)	(547)	(124)
Employer Contribution Rate	<b>5.73%</b>	<b>5.73%</b>	<b>6.74%</b>	<b>6.74%</b>	<b>7.56%</b>	<b>0.00%</b>	<b>2.88%</b>	<b>4.51%</b>
<b>Increase/(Decrease) in Rate</b>	<b>0.65%</b>	<b>0.65%</b>	<b>2.02%</b>	<b>2.02%</b>	<b>2.35%</b>	<b>0.00%</b>	<b>0.01%</b>	<b>0.00%</b>

\*After actuarial gains and losses

# Participant Data

$L = 4 = \log_{10} 25' - 2$   
 For the  $\frac{g}{g_0}$  of  
 letter D

more  $N = 17$  ~~0.650~~  
we golden number  
 $v' = 1.7$  ~~0.650~~

Given distance ( $q$ ) =  $r'$ ; cos 21°  
 we have  
 $N = 17 \frac{0.59' 43.8'}{0.59' 43.8'} - 22.92 = 4$

distance ( $\hat{q}$ ) =  $r'$ : cos.  $2\frac{1}{2}'$

Plates. U.S., or  
- $\frac{1}{2}$ , or

Log. cos.  $2 \frac{1}{3} v'$

~~6-0708694~~ (6-0708694)

Log. No. 4309696006

97F.....0.4966525

Rule of the 2<sup>nd</sup> perihelion  $\Delta L = \frac{27 - 0}{4308325} 2,$

For example, if we have  $P(v - u') = 2$ , then

$382^{\circ} 12' 48'' \cdot 1 + 98^{\circ} 54' 48'' = 480^{\circ} 56' 36''$

# PARTICIPANT DATA

---

## Overview of System Membership

The state administers eight retirement systems for state and local public employees. Retirement system membership is determined according to the participant's occupation and employer. Employees covered by each system are defined in separate chapters of the Revised Code of Washington (RCW).

The state also administers benefits for volunteer fire fighters and two small judicial systems (not included in this valuation). The judicial systems are closed to new members. Judges hired after June 30, 1988 are members of PERS 2/3.

The five largest retirement systems and a general description of their membership are listed below.

<b>PERS - Public Employees' Retirement System <i>Chapter 41.40 RCW</i></b>	State employees; employees of all counties and most cities (the exceptions are Tacoma, Seattle, and Spokane); non-teaching employees of institutions of higher learning and community colleges; employees of ports, service districts, Energy Northwest (formerly known as the Washington Public Power Supply System) and public utility districts. Judges first elected or appointed after June 30, 1988 are also included.
<b>TRS - Teachers' Retirement System <i>Chapter 41.32 RCW</i></b>	Certificated teachers; administrators; and educational staff associates.
<b>SERS - School Employees' Retirement System <i>Chapter 41.35 RCW</i></b>	Classified school district employees.
<b>LEOFF - Law Enforcement and Fire Fighter's Retirement System <i>Chapter 41.26 RCW</i></b>	Fire fighters; law enforcement officers including sheriffs; university, port, city police officers, and enforcement officers with the Department of Fish and Wildlife.
<b>WSP - Washington State Patrol Retirement System <i>Chapter 43.43 RCW</i></b>	Commissioned officers of the Washington State Patrol.

**Active Membership By Employer and Plan**

Employer	Employer	Total by			TRS		
		Plan 1	Plan 2	Plan 3	Plan 1	Plan 2	Plan 3
State Agencies	59,194	7,391	43,145	7,326	100	8	59
Higher Education	19,545	1,854	14,539	2,974	63	5	4
Community Colleges	5,963	538	4,289	828	214	39	55
K-12	116,534	3,668	0	0	10,755	7,535	46,964
Counties	29,321	2,461	21,762	2,304	0	0	0
County Sub Divisions	16,622	1,378	13,737	1,476	0	0	0
First Class Cities	8,391	365	2,579	421	0	0	0
Other Cities	16,936	984	9,803	1,228	0	0	0
Ports	2,147	203	1,631	133	0	0	0
Education Service District	1,953	77	0	0	43	50	181
Fire Districts	2,956	28	469	52	0	0	0
Public Utility District	3,947	483	3,083	381	0	0	0
Water Districts	1,688	191	1,365	132	0	0	0
Energy Northwest	1,235	82	860	293	0	0	0
Unions	37	37	0	0	0	0	0
<b>TOTAL</b>	<b>286,469</b>	<b>19,740</b>	<b>117,262</b>	<b>17,548</b>	<b>11,175</b>	<b>7,637</b>	<b>47,263</b>

**Active Membership By Employer and Plan**

(Continued)

Employer	SERS		LEOFF		WSP	
	Plan 2	Plan 3	Plan 1	Plan 2	Plan 1	Plan 2
State Agencies	0	0	0	86	1,045	34
Higher Education	0	0	0	106	0	0
Community Colleges	0	0	0	0	0	0
K-12	20,831	26,781	0	0	0	0
Counties	0	0	137	2,657	0	0
County Sub Divisions	0	0	3	28	0	0
First Class Cities	0	0	484	4,542	0	0
Other Cities	0	0	279	4,642	0	0
Ports	0	0	6	174	0	0
Education Service District	673	929	0	0	0	0
Fire Districts	0	0	82	2,325	0	0
Public Utility District	0	0	0	0	0	0
Water Districts	0	0	0	0	0	0
Energy Northwest	0	0	0	0	0	0
Unions	0	0	0	0	0	0
<b>TOTAL</b>	<b>21,504</b>	<b>27,710</b>	<b>991</b>	<b>14,560</b>	<b>1,045</b>	<b>34</b>

The tables below summarize participant data changes from last year's valuation to the current year's valuation. The participant data is divided into two main categories: (1) Actives and (2) Annuitants (receiving a pension or annuity payment). The “+” symbol indicates new participants entering the system or actives and new beneficiaries entering the annuitant status; whereas the “-” symbol indicates participants that have left either active or annuitant status.

<b>Reconciliation of Participant Data</b>						
	<b>PERS</b>			<b>TRS</b>		
	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 3</b>	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 3</b>
2002 Actives	21,737	116,939	15,509	12,456	7,809	45,798
Transfers	0	(111)	3,654	0	(40)	37
Hires/Rehires (+)	456	9,900	62	149	269	4,147
New Retirees (-)	(1,804)	(686)	(69)	(1,185)	(72)	(56)
Deaths (-)	(46)	(171)	(9)	(23)	(8)	(13)
Terminations (-)	(603)	(8,609)	(1,599)	(222)	(321)	(2,650)
<b>2003 Actives</b>	<b>19,740</b>	<b>117,262</b>	<b>17,548</b>	<b>11,175</b>	<b>7,637</b>	<b>47,263</b>
2002 Annuitants	54,006	9,741	9	33,148	823	283
New Retirees (+)	2,223	1,299	73	1,488	142	98
Annuitant Deaths (-)	(2,280)	(237)	0	(928)	(15)	(2)
New Survivors (+)	438	104	4	179	9	7
Other (-)	(15)	(3)	0	(32)	(2)	(1)
<b>2003 Annuitants</b>	<b>54,372</b>	<b>10,904</b>	<b>86</b>	<b>33,855</b>	<b>957</b>	<b>385</b>
<b>Ratio Actives to Annuitants</b>	<b>0.36</b>	<b>10.75</b>	<b>204.05</b>	<b>0.33</b>	<b>7.98</b>	<b>122.76</b>

<b>Reconciliation of Participant Data</b>						
(Continued)						
	<b>SERS</b>		<b>LEOFF</b>		<b>WSP</b>	
	<b>Plan 2</b>	<b>Plan 3</b>	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 1</b>	<b>Plan 2</b>
2002 Actives	22,870	26,921	1,147	14,011	1,035	0
Transfers	428	51	0	0	0	0
Hires/Rehires (+)	313	3,793	8	964	44	34
New Retirees (-)	(231)	(86)	(154)	(55)	(24)	0
Deaths (-)	(27)	(12)	(4)	(11)	(1)	0
Terminations (-)	(1,849)	(2,957)	(6)	(349)	(9)	0
<b>2003 Actives</b>	<b>21,504</b>	<b>27,710</b>	<b>991</b>	<b>14,560</b>	<b>1,045</b>	<b>34</b>
2002 Annuitants	437	185	7,987	244	718	0
New Retirees (+)	298	120	164	74	25	0
Annuitant Deaths (-)	(8)	(3)	(162)	(3)	(11)	0
New Survivors (+)	9	4	70	3	3	0
Other (-)	0	0	(5)	(2)	0	0
<b>2003 Annuitants</b>	<b>736</b>	<b>306</b>	<b>8,054</b>	<b>316</b>	<b>735</b>	<b>0</b>
<b>Ratio Actives to Annuitants</b>	<b>29.22</b>	<b>90.56</b>	<b>0.12</b>	<b>46.08</b>	<b>1.42</b>	<b>0.00</b>

## Summary of Plan Participants

<b>Summary of Plan Participants</b>								
<b>PERS:</b>	<b>2003</b>				<b>2002</b>			
	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 3</b>	<b>Total</b>	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 3</b>	<b>Total</b>
<b>Active Members</b>								
Number	19,740	117,262	17,548	154,550	21,737	116,939	15,509	154,185
Total Salaries (millions)	\$945	\$5,143	\$787	\$6,875	\$1,023	\$4,953	\$708	\$6,684
Average Age	55.2	44.6	42.2	45.7	54.6	44.0	42.7	45.4
Average Service	21.4	9.0	8.5	10.5	21.1	8.4	9.2	10.3
Average Salary	\$47,876	\$43,855	\$44,823	\$44,478	\$47,080	\$42,352	\$45,638	\$43,349
<b>Terminated Members</b>								
Number Vested	3,142	16,089	770	20,001	3,280	15,674	198	19,152
Number "Non-Vested"	6,525	78,853	0	85,378	7,010	77,151	0	84,161
<b>Retirees (including L&amp;I disabled)</b>								
Number of Retirees (All)	54,372	10,904	86	65,362	54,006	9,741	9	63,756
Average Monthly Benefit, All Retirees	\$1,250	\$618	\$407	\$1,144	\$1,173	\$580	\$405	\$1,082
Number of New "Service Retirees"	2,148	1,126	70	3,344	2,264	1,062	9	3,335
Average Monthly Benefit, New "Service Retirees"	\$2,255	\$828	\$429	\$1,736	\$2,122	\$755	\$405	\$1,682

<b>Summary of Plan Participants</b>								
<b>TRS:</b>	<i>Continued</i>				<b>2002</b>			
	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 3</b>	<b>Total</b>	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 3</b>	<b>Total</b>
<b>Active Members</b>								
Number	11,175	7,637	47,263	66,075	12,456	7,809	45,798	66,063
Total Salaries (millions)	\$692	\$415	\$2,308	\$3,415	\$741	\$399	\$2,124	\$3,264
Average Age	55.4	49.3	41.1	44.5	54.6	48.6	40.6	44.2
Average Service	23.9	12.1	8.4	11.4	23.4	11.3	7.9	11.2
Average Salary	\$61,954	\$54,333	\$48,836	\$51,690	\$59,496	\$51,123	\$46,369	\$49,406
<b>Terminated Members</b>								
Number Vested	1,647	2,493	2,418	6,558	1,819	2,487	2,151	6,457
Number "Non-Vested"	776	4,169	0	4,945	814	4,378	0	5,192
Temporarily Disabled	2	0	0	2	3	0	0	3
<b>Retirees</b>								
Number of Retirees (All)	33,855	957	385	35,197	33,148	823	283	34,254
Average Monthly Benefit, All Retirees	\$1,539	\$941	\$407	\$1,510	\$1,476	\$904	\$376	\$1,453
Number of New "Service Retirees"	1,459	136	94	1,689	1,710	109	68	1,887
Average Monthly Benefit, New "Service Retirees"	\$2,206	\$1,036	\$482	\$2,016	\$2,126	\$1,093	\$411	\$2,005

**Summary of Plan Participants***Continued*

SERS:	2003			2002		
	Plan 2	Plan 3	Total	Plan 2	Plan 3	Total
<b>Active Members</b>						
Number	21,504	27,710	49,214	22,870	26,921	49,791
Total Salaries (millions)	\$494	\$639	\$1,133	\$494	\$592	\$1,086
Average Age	48.3	45.8	46.9	47.5	45.2	46.3
Average Service	8.6	7.1	7.8	7.7	6.8	7.2
Average Salary	\$22,967	\$23,051	\$23,014	\$21,593	\$21,988	\$21,807
<b>Terminated Members</b>						
Number Vested	1,902	1,648	3,550	1,397	1,148	2,545
Number "Non-Vested"	4,232	0	4,232	3,553	0	3,553
<b>Retirees</b>						
Number of Retirees (All)	736	306	1,042	437	185	622
Average Monthly Benefit, All Retirees	\$518	\$231	\$434	\$494	\$212	\$410
Number of New "Service Retirees"	273	115	388	208	97	305
Average Monthly Benefit, New "Service Retirees"	\$562	\$259	\$472	\$566	\$217	\$455

**Summary of Plan Participants***Continued*

LEOFF:	2003			2002		
	Plan 1	Plan 2	Total	Plan 1	Plan 2	Total
<b>Active Members</b>						
Number	991	14,560	15,551	1,147	14,011	15,158
Total Salaries (millions)	\$71	\$967	\$1,038	\$80	\$902	\$982
Average Age	54.0	39.5	40.4	53.2	39.0	40.1
Average Service	29.3	10.7	11.9	28.3	10.4	11.8
Average Salary	\$71,924	\$66,388	\$66,741	\$69,667	\$64,347	\$64,750
<b>Terminated Members</b>						
Number Vested	14	439	453	22	376	398
Number "Non-Vested"	84	1,186	1,270	90	1,137	1,227
<b>Retirees</b>						
Number of Retirees (All)	8,054	316	8,370	7,987	244	8,231
Average Monthly Benefit, All Retirees	\$2,796	\$1,341	\$2,741	\$2,730	\$1,188	\$2,684
Number of New "Service Retirees"*	163	66	229	173	45	218
Average Monthly Benefit, New "Service Retirees"*	\$3,642	\$1,720	\$3,088	\$3,428	\$1,583	\$3,047

\*New Disability Retirees Included for Plan 1 Only

**Summary of Plan Participants***Continued*

WSP:	2003			2002		
	Plan 1	Plan 2	Total	Plan 1	Plan 2	Total
<b>Active Members</b>						
Number	1,045	34	1,079	1,035	0	1,035
Total Salaries (millions)	\$65	\$1	\$66	\$63	\$0	\$63
Average Age	38.8	28.8	38.5	38.4	0.0	38.4
Average Service	12.2	0.8	11.8	11.9	0.0	11.9
Average Salary	\$61,848	\$41,018	\$61,192	\$60,422	\$0	\$60,422
<b>Terminated Members</b>						
Number Vested	32	0	32	33	0	33
Number "Non-Vested"	20	0	20	17	0	17
Disabled Members*	61	0	61	62	0	62
<b>Retirees</b>						
Number of Retirees (All)	735	0	735	718	0	718
Average Monthly Benefit, All Retirees	\$2,884	\$0	\$2,884	\$2,756	\$0	\$2,756
Number of New "Service Retirees"	25	0	25	25	0	25
Average Monthly Benefit, New "Service Retirees"	\$3,811	\$0	\$3,811	\$3,468	\$0	\$3,468

*\*Benefits provided outside of pension funds*

# Appendices

$L = 4 = \log_{10} 28' - 22.5 + 0.0684649 + 2$   
 For the goniometer let  $\theta = 158.0^\circ$

ore  $N = 17$  ~~0.01450~~  
we golden number  
 $v' = 1.7$  ~~0.01450~~  
 $D = 4.9 \frac{2.3}{2.3} \frac{3.9}{3.9} \frac{4.8}{4.8}$

Given distance ( $q$ ) =  $r'$ ; cosine 21°.  
Then number we have  

$$N = 17 \frac{0810}{\overline{0}} \text{ given number} - \frac{98'59'43'8}{\overline{\overline{1}}} - 2292 = 4$$

The distance ( $\vec{q}$ ) =  $r'$ : cos.  $2\frac{1}{2}v'$ , or

Log. cos.  $2\frac{1}{3}v$  have  ~~$\frac{2}{3}v$~~   $\frac{2}{3}v$  25654

~~Log. cos.  $\frac{1}{2}v'$~~  ~~Log.  $v'$~~  ~~Log.  $r'$~~  ~~N-2034~~ ~~9-62513680~~ ~~9-070860~~

Otherwise Log.  $\frac{c}{c-16}$  — Log.  $\frac{30}{30-69430}$

Log. No. 18960020

$$E = \frac{1}{2} m v^2 = \frac{1}{2} m (v_0^2 - 2 g h) = \frac{1}{2} m v_0^2 - m g h$$

Example of the 2<sup>nd</sup> application of the formula  $E = \frac{2}{2^2 - 1} = 0.4960525$

case of the perihelion  $\gamma_7 = -2$

We have got

88°. 48' 48". 12'. 48". 1 + 98°. 38' 48". 10'. 48". 1

# APPENDICES

---

## Actuarial Assumptions and Methods

### Actuarial Cost Methods

The method employed varies by plan:

**Plans 1:** A variation of the Aggregate Cost Method was used to determine the normal cost and the actuarial accrued liability for retirement, termination and ancillary benefits. Under this method, the unfunded actuarial accrued liability is equal to the unfunded actuarial present value of projected benefits less the actuarial present value of future normal costs for all active members. The present value of future normal costs is based on the Aggregate normal cost rate for Plan 2/3 and the resulting unfunded actuarial accrued liability is amortized by June 30, 2024 as a level percentage of projected system payroll. The projected payroll includes pay from plan 2 and plan 3 as well as projected payroll from future new entrants.

As a result of this hybrid method employers are charged the same contribution rate, regardless of the plan in which employees hold membership (except for LEOFF).

**Plans 2 and Plans 3:** The Aggregate Cost Method was used to determine the normal cost and the actuarial accrued liability for retirement, termination and ancillary benefits. Under this method, the unfunded actuarial present value of fully projected benefits is amortized over the future payroll of the active group. The entire contribution is considered normal cost and no unfunded actuarial accrued liability exists.

**Washington State Patrol:** The Aggregate Cost Method was used to determine the normal cost and the actuarial accrued liability for retirement, termination and ancillary benefits. The entire normal cost is divided equally between the employee and the employer. The minimum employee normal cost rate is 2%.

### Asset Valuation Method

The actuarial value of assets is calculated under an adjusted market value method by starting with the market value of assets. For subsequent years the actuarial value of assets is determined by adjusting the market value of assets to reflect the difference between the actual investment return and the expected investment return during each of the last 8 years or, if fewer, the completed years since adoption, at the following rates per year (annual recognition):

<b>Annual Gain/Loss</b>		
<b>Rate of Return</b>	<b>Smoothing Period</b>	<b>Annual Recognition</b>
15% and up	8 years	12.50%
14-15%	7 years	14.29%
13-14%	6 years	16.67%
12-13%	5 years	20.00%
11-12%	4 years	25.00%
10-11%	3 years	33.33%
9-10%	2 years	50.00%
7-9%	1 year	100.00%
6-7%	2 years	50.00%
5-6%	3 years	33.33%
4-5%	4 years	25.00%
3-4%	5 years	20.00%
2-3%	6 years	16.67%
1-2%	7 years	14.29%
1% and lower	8 years	12.50%

Additionally, the actuarial value of assets may not exceed 130% nor drop below 70% of the market value of assets.

### **Gain-Sharing Valuation Method**

The difference between the present value of future benefits valued at a gross and net valuation interest rate was used to determine the liability associated with future gain-sharing benefits. See the table of Economic Assumptions in this Appendix for a listing of the valuation interest rates used for each individual retirement system and plan. The gross valuation interest rate, the rate before reduction for gain sharing, was used to determine the present value of future salaries.

### **Changes in Assumptions and Methods since Last Valuation**

The method for calculating the actuarial value of assets has changed. A 30% market value corridor was added to the asset valuation method.

The difference between the liabilities valued at a gross and net valuation interest rate was used to determine the liability associated with the current gain-sharing benefit provisions. This liability was not included in the previous valuation.

## Economic Assumptions

Economic Assumptions					
By System	PERS	TRS	SERS	LEOFF	WSP
Annual Growth in Membership	1.25%	0.90%	1.25%	1.25%	1.25%
Interest on Member Contributions <sup>1</sup>	5.50%	5.50%	5.50%	5.50%	5.50%
Return on Investment Earnings <sup>2</sup>	8.00%	8.00%	8.00%	8.00%	8.00%
Reduction (due to future gain-sharing payments) <sup>3</sup>	0.40%	0.40%	0.40%	N/A	N/A
Net Return on Investment Earnings	7.60%	7.60%	7.60%	8.00%	8.00%
Inflation <sup>4</sup>	3.50%	3.50%	3.50%	3.50%	3.50%
General Salary Increases (due to inflation) <sup>5</sup>	4.50%	4.50%	4.50%	4.50%	4.50%
Annual COLA	Uniform	Uniform			
Plan 1:	COLA <sup>6</sup>	COLA <sup>6</sup>	N/A	3.50% <sup>8</sup>	3.00% <sup>7</sup>
Plan 2/3:	3.00% <sup>7</sup>				

<sup>1</sup>Annual rate, compounded quarterly

<sup>2</sup>Annual rate, compounded annually

<sup>3</sup>Gain-sharing applies only in PERS, TRS and SERS. Rate reductions shown are for plan 1 only.

Plan 2/3 reductions: PERS = 0.04%, TRS = 0.29%, SERS = 0.37%. These rate reductions are smaller than the plan 1 reductions

because the plan 2/3 defined benefits are combined, but only plan 3 members receive gain-sharing benefits.

<sup>4</sup>Based on the CPI: Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items

<sup>5</sup>Excludes longevity, merit or step increases that usually apply to members in the early part of their careers

<sup>6</sup>As provided in the plan provisions

<sup>7</sup>Based on the CPI (3% maximum)

<sup>8</sup>Equal to the CPI

## Demographic Assumptions

Probability of Service Retirement												SERS						LEOFF						WSP																	
TRS												Plan 2/3*						Plan 2/3*						Plan 1						Plan 2											
Plan 1						Plan 2/3*						Plan 1						Service less than 30 years or equal to 30 years						Service greater than 30 years or equal to 30 years						Service less than 30 years or equal to 30 years						Service greater than 30 years or equal to 30 years					
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female								
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
50	0.64	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
51	0.57	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.20	0.40	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
52	0.52	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.20	0.40	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
53	0.52	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.20	0.40	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
54	0.52	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.20	0.40	0.30	0.05	0.03	0.08	0.05	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04							
55	0.22	0.26	0.05	0.05	0.07	0.07	0.20	0.20	0.35	0.30	0.05	0.05	0.05	0.08	0.08	0.08	0.05	0.05	0.05	0.07	0.07	0.16	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23								
56	0.22	0.18	0.05	0.05	0.07	0.07	0.20	0.20	0.35	0.30	0.05	0.10	0.08	0.15	0.05	0.05	0.07	0.07	0.07	0.07	0.07	0.16	0.25	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28								
57	0.22	0.18	0.05	0.05	0.07	0.07	0.20	0.20	0.40	0.30	0.05	0.10	0.08	0.15	0.05	0.05	0.07	0.07	0.07	0.07	0.07	0.16	0.25	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28								
58	0.22	0.22	0.10	0.05	0.14	0.07	0.20	0.25	0.45	0.30	0.05	0.10	0.08	0.15	0.10	0.05	0.14	0.07	0.07	0.07	0.07	0.23	0.33	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28								
59	0.22	0.37	0.10	0.05	0.14	0.07	0.20	0.25	0.45	0.30	0.20	0.15	0.30	0.23	0.10	0.05	0.14	0.21	0.21	0.21	0.23	0.33	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28								
60	0.22	0.18	0.14	0.14	0.21	0.21	0.20	0.20	0.60	0.50	0.30	0.30	0.45	0.45	0.14	0.18	0.21	0.27	0.28	0.37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00										
61	0.22	0.22	0.14	0.18	0.21	0.27	0.45	0.35	0.60	0.55	0.30	0.30	0.45	0.45	0.14	0.18	0.21	0.27	0.28	0.37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00										
62	0.40	0.37	0.33	0.30	0.50	0.45	0.30	0.25	0.60	0.50	0.30	0.30	0.45	0.45	0.14	0.18	0.21	0.27	0.28	0.37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00										
63	0.26	0.26	0.26	0.26	0.39	0.39	0.25	0.20	0.60	0.50	0.60	0.50	0.90	0.90	0.50	0.50	0.79	0.82	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90							
64	0.30	0.26	0.79	0.82	0.90	0.90	0.45	0.45	0.90	0.90	0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
65	0.49	0.46	0.52	0.49	0.52	0.49	0.45	0.45	0.90	0.90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50							
66	0.30	0.26	0.30	0.30	0.35	0.30	0.30	0.35	0.90	0.90	0.50	0.50	0.25	0.25	0.50	0.25	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30							
67	0.30	0.26	0.22	0.26	0.22	0.26	0.30	0.35	0.90	0.90	0.50	0.50	0.25	0.25	0.50	0.25	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22						
68	0.30	0.26	0.22	0.26	0.26	0.26	0.26	0.30	0.25	0.90	0.90	0.50	0.50	0.40	0.40	0.50	0.40	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22					
69	0.30	0.26	0.26	0.22	0.22	0.26	0.22	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
70+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						

\*Approximately 50% of those eligible to retire with at least 20, but less than 30 years of service in Plan 3 elect to defer their benefits.

RP-2000 Mortality Rates				Mortality											
Combined Healthy Table		Age Offset (Years) -->		PERS - all plans		TRS - all plans		SERS - all plans		LEOFF - all plans		WSP - all plans			
Age	Male	Female	Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	0.000345	0.000191	20	0.000345	0.000191	0.000345	0.000191	0.000345	0.000191	0.000345	0.000191	0.000345	0.000191	0.000345	0.000191
21	0.000357	0.000192	21	0.000357	0.000192	0.000345	0.000191	0.000357	0.000191	0.000357	0.000192	0.000357	0.000192	0.000357	0.000192
22	0.000366	0.000194	22	0.000366	0.000194	0.000345	0.000191	0.000366	0.000191	0.000366	0.000194	0.000366	0.000194	0.000366	0.000194
23	0.000373	0.000197	23	0.000373	0.000197	0.000357	0.000192	0.000373	0.000192	0.000373	0.000197	0.000373	0.000197	0.000373	0.000197
24	0.000376	0.000201	24	0.000376	0.000201	0.000366	0.000194	0.000376	0.000194	0.000376	0.000194	0.000376	0.000194	0.000376	0.000201
25	0.000376	0.000207	25	0.000376	0.000207	0.000373	0.000197	0.000376	0.000197	0.000376	0.000197	0.000376	0.000197	0.000376	0.000207
26	0.000378	0.000214	26	0.000378	0.000214	0.000376	0.000201	0.000378	0.000201	0.000378	0.000201	0.000378	0.000201	0.000378	0.000214
27	0.000382	0.000223	27	0.000382	0.000223	0.000376	0.000207	0.000382	0.000207	0.000382	0.000207	0.000382	0.000207	0.000382	0.000223
28	0.000393	0.000235	28	0.000393	0.000235	0.000378	0.000214	0.000393	0.000214	0.000393	0.000214	0.000393	0.000214	0.000393	0.000235
29	0.000412	0.000248	29	0.000412	0.000248	0.000382	0.000223	0.000412	0.000223	0.000412	0.000223	0.000412	0.000223	0.000412	0.000248
30	0.000444	0.000264	30	0.000444	0.000264	0.000393	0.000235	0.000444	0.000235	0.000444	0.000235	0.000444	0.000235	0.000444	0.000264
31	0.000499	0.000307	31	0.000499	0.000307	0.000412	0.000248	0.000499	0.000248	0.000499	0.000248	0.000499	0.000248	0.000499	0.000307
32	0.000562	0.000350	32	0.000562	0.000350	0.000444	0.000264	0.000562	0.000264	0.000562	0.000264	0.000562	0.000264	0.000562	0.000350
33	0.000631	0.000394	33	0.000631	0.000394	0.000499	0.000307	0.000631	0.000307	0.000631	0.000307	0.000631	0.000307	0.000631	0.000394
34	0.000702	0.000435	34	0.000702	0.000435	0.000562	0.000350	0.000702	0.000350	0.000702	0.000350	0.000702	0.000350	0.000702	0.000435
35	0.000773	0.000475	35	0.000773	0.000475	0.000631	0.000394	0.000773	0.000394	0.000773	0.000394	0.000773	0.000394	0.000773	0.000475
36	0.000841	0.000514	36	0.000841	0.000514	0.000702	0.000435	0.000841	0.000435	0.000841	0.000435	0.000841	0.000435	0.000841	0.000514
37	0.000904	0.000554	37	0.000904	0.000554	0.000773	0.000475	0.000904	0.000475	0.000904	0.000475	0.000904	0.000475	0.000904	0.000554
38	0.000964	0.000598	38	0.000964	0.000598	0.000841	0.000514	0.000964	0.000514	0.000964	0.000514	0.000964	0.000514	0.000964	0.000598
39	0.001021	0.000648	39	0.001021	0.000648	0.000904	0.000554	0.001021	0.000554	0.001021	0.000554	0.001021	0.000554	0.001021	0.000648
40	0.001079	0.000706	40	0.001079	0.000706	0.000964	0.000598	0.001079	0.000598	0.001079	0.000598	0.001079	0.000598	0.001079	0.000706
41	0.001142	0.000774	41	0.001142	0.000774	0.001021	0.000648	0.001142	0.000648	0.001142	0.000648	0.001142	0.000648	0.001142	0.000774
42	0.001215	0.000852	42	0.001215	0.000852	0.001079	0.000706	0.001215	0.000706	0.001215	0.000706	0.001215	0.000706	0.001215	0.000852
43	0.001299	0.000937	43	0.001299	0.000937	0.001142	0.000774	0.001299	0.000774	0.001299	0.000774	0.001299	0.000774	0.001299	0.000937
44	0.001397	0.001029	44	0.001397	0.001029	0.001215	0.000852	0.001397	0.000852	0.001397	0.000852	0.001397	0.000852	0.001397	0.001029

**Mortality**

(Continued)

RP-2000 Mortality Rates		Combined Healthy		Age Offset		PERS - all plans		TRIS - all plans		SERS - all plans		LEOFF - all plans		WSP - all plans			
Age	Male	Female	Age	Male	Female	Age	Male	Female	Age	Male	Female	Age	Male	Female	Age	Male	Female
45	0.001508	0.001124	45	0.001508	0.001124	0.001299	0.000937	0.001508	0.000937	0.001508	0.001124	0.001508	0.001124	0.001508	0.001124	0.001124	
46	0.001616	0.001223	46	0.001616	0.001223	0.001397	0.001029	0.001616	0.001029	0.001616	0.001223	0.001616	0.001223	0.001616	0.001223	0.001616	
47	0.001734	0.001326	47	0.001734	0.001326	0.001508	0.001124	0.001734	0.001124	0.001734	0.001326	0.001734	0.001326	0.001734	0.001326	0.001734	
48	0.001860	0.001434	48	0.001860	0.001434	0.001616	0.001223	0.001860	0.001223	0.001860	0.001434	0.001860	0.001434	0.001860	0.001434	0.001860	
49	0.001995	0.001550	49	0.001995	0.001550	0.001550	0.001326	0.001995	0.001326	0.001995	0.001326	0.001995	0.001326	0.001995	0.001326	0.001995	0.001326
50	0.002138	0.001676	50	0.002138	0.001676	0.001860	0.001434	0.002138	0.001434	0.002138	0.001434	0.002138	0.001434	0.002138	0.001434	0.002138	0.001434
51	0.002449	0.001852	51	0.002449	0.001852	0.001995	0.001550	0.002449	0.001550	0.002449	0.001852	0.002449	0.001852	0.002449	0.001852	0.002449	0.001852
52	0.002667	0.002018	52	0.002667	0.002018	0.002018	0.001676	0.002667	0.001676	0.002667	0.002018	0.002667	0.002018	0.002667	0.002018	0.002667	0.002018
53	0.002916	0.002207	53	0.002916	0.002207	0.002207	0.001852	0.002916	0.001852	0.002916	0.002207	0.002916	0.002207	0.002916	0.002207	0.002916	0.002207
54	0.003196	0.002424	54	0.003196	0.002424	0.002424	0.002667	0.003196	0.002667	0.003196	0.002018	0.002667	0.002018	0.003196	0.002424	0.003196	0.002424
55	0.003624	0.002717	55	0.003624	0.002717	0.002916	0.002207	0.003624	0.002207	0.003624	0.002717	0.003624	0.002717	0.003624	0.002717	0.003624	0.002717
56	0.004200	0.003090	56	0.004200	0.003090	0.003196	0.002424	0.004200	0.002424	0.004200	0.003090	0.004200	0.003090	0.004200	0.003090	0.004200	0.003090
57	0.004693	0.003478	57	0.004693	0.003478	0.003624	0.002717	0.004693	0.002717	0.004693	0.003478	0.004693	0.003478	0.004693	0.003478	0.004693	0.003478
58	0.005273	0.003923	58	0.005273	0.003923	0.003923	0.004200	0.005273	0.003909	0.005273	0.003909	0.005273	0.003909	0.005273	0.003909	0.005273	0.003909
59	0.005945	0.004441	59	0.005945	0.004441	0.004441	0.004693	0.005945	0.004441	0.004693	0.005945	0.004441	0.004693	0.005945	0.004441	0.004693	0.005945
60	0.006747	0.005055	60	0.006747	0.005055	0.005055	0.005273	0.003923	0.006747	0.003923	0.006747	0.003923	0.006747	0.005055	0.006747	0.005055	0.006747
61	0.007676	0.005814	61	0.007676	0.005814	0.005814	0.004441	0.005945	0.004441	0.005945	0.004441	0.005945	0.004441	0.005945	0.004441	0.005945	0.004441
62	0.008757	0.006657	62	0.008757	0.006657	0.006657	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	0.006747	0.005055	0.006747
63	0.010012	0.007648	63	0.010012	0.007648	0.007648	0.007648	0.006767	0.005814	0.007648	0.006767	0.005814	0.007648	0.006767	0.005814	0.007648	0.006767
64	0.011280	0.008619	64	0.011280	0.008619	0.008619	0.008757	0.006657	0.008619	0.008757	0.006657	0.008619	0.008757	0.006657	0.008619	0.008619	0.008619
65	0.012737	0.009706	65	0.012737	0.009706	0.010012	0.007648	0.012737	0.007648	0.012737	0.009706	0.012737	0.009706	0.012737	0.009706	0.012737	0.009706
66	0.014409	0.010954	66	0.014409	0.010954	0.010954	0.012737	0.008619	0.014409	0.012737	0.008619	0.014409	0.012737	0.008619	0.014409	0.012737	0.008619
67	0.016075	0.012163	67	0.016075	0.012163	0.012163	0.012163	0.012737	0.009706	0.016075	0.012737	0.009706	0.016075	0.012737	0.009706	0.016075	0.012737
68	0.017871	0.013445	68	0.017871	0.013445	0.013445	0.014409	0.010954	0.017871	0.010954	0.017871	0.013445	0.017871	0.013445	0.017871	0.013445	0.017871
69	0.019802	0.014860	69	0.019802	0.014860	0.014860	0.016075	0.012163	0.019802	0.012163	0.019802	0.016075	0.019802	0.016075	0.019802	0.016075	0.019802

Mortality											
(Continued)											
RP-2000 Mortality Rates				Age Offset (Years) -->				PERS - all plans			
Age	Male	Female	Combined Healthy	Age	Male	Female	Age	Male	Female	Male	Female
70	0.022206	0.016742	70	0.022206	0.016742	0.017871	0.013445	0.022206	0.016742	0.022206	0.016742
71	0.024570	0.018579	71	0.024570	0.018579	0.019802	0.014860	0.024570	0.018579	0.024570	0.018579
72	0.027281	0.020665	72	0.027281	0.020665	0.022206	0.016742	0.027281	0.016742	0.026665	0.027281
73	0.030387	0.022970	73	0.030387	0.022970	0.024570	0.018579	0.030387	0.018579	0.030387	0.022970
74	0.033900	0.025458	74	0.033900	0.025458	0.027281	0.020665	0.033900	0.020665	0.033900	0.025458
75	0.037834	0.028106	75	0.037834	0.028106	0.030387	0.022970	0.037834	0.022970	0.037834	0.028106
76	0.042169	0.030966	76	0.042169	0.030966	0.033900	0.025458	0.042169	0.025458	0.042169	0.030966
77	0.046906	0.034105	77	0.046906	0.034105	0.037834	0.028106	0.046906	0.028106	0.046906	0.034105
78	0.052123	0.037595	78	0.052123	0.037595	0.042169	0.030966	0.052123	0.030966	0.052123	0.037595
79	0.057927	0.041506	79	0.057927	0.041506	0.046906	0.034105	0.057927	0.034105	0.057927	0.041506
80	0.064368	0.045879	80	0.064368	0.045879	0.052123	0.037595	0.064368	0.037595	0.064368	0.045879
81	0.072041	0.050780	81	0.072041	0.050780	0.057927	0.041506	0.072041	0.041506	0.072041	0.050780
82	0.080486	0.056294	82	0.080486	0.056294	0.064368	0.045879	0.080486	0.045879	0.080486	0.056294
83	0.089718	0.062506	83	0.089718	0.062506	0.072041	0.050780	0.089718	0.050780	0.089718	0.062506
84	0.099779	0.069517	84	0.099779	0.069517	0.080486	0.056294	0.099779	0.056294	0.099779	0.069517
85	0.110757	0.077446	85	0.110757	0.077446	0.089718	0.062506	0.110757	0.062506	0.110757	0.077446
86	0.122797	0.086376	86	0.122797	0.086376	0.099779	0.069517	0.122797	0.069517	0.122797	0.086376
87	0.136043	0.096337	87	0.136043	0.096337	0.110757	0.077446	0.136043	0.077446	0.136043	0.096337
88	0.150590	0.107303	88	0.150590	0.107303	0.122797	0.086376	0.150590	0.086376	0.150590	0.107303
89	0.166420	0.119154	89	0.166420	0.119154	0.136043	0.096337	0.166420	0.096337	0.166420	0.119154
90	0.183408	0.131682	90	0.183408	0.131682	0.150590	0.107303	0.183408	0.107303	0.183408	0.131682
91	0.199769	0.144604	91	0.199769	0.144604	0.166420	0.119154	0.199769	0.119154	0.199769	0.144604
92	0.216605	0.157618	92	0.216605	0.157618	0.183408	0.131682	0.216605	0.131682	0.216605	0.157618
93	0.233662	0.170433	93	0.233662	0.170433	0.199769	0.144604	0.233662	0.144604	0.233662	0.170433
94	0.250693	0.182799	94	0.250693	0.182799	0.216605	0.157618	0.250693	0.157618	0.250693	0.182799

**Mortality**

(Continued)

RP-2000 Mortality Rates				Age Offset (Years) -->		PERS - all plans		TRS - all plans		SERS - all plans		LEOFF - all plans		WSP - all plans		
Age	Male	Female	Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
95	0.267491	0.194509	95	0.267491	0.194509	0.233662	0.170433	0.267491	0.170433	0.267491	0.194509	0.267491	0.194509	0.267491	0.194509	
96	0.283905	0.205379	96	0.283905	0.205379	0.250693	0.182799	0.283905	0.182799	0.283905	0.205379	0.283905	0.205379	0.283905	0.205379	
97	0.299852	0.215240	97	0.299852	0.215240	0.215240	0.267491	0.194509	0.299852	0.194509	0.299852	0.215240	0.299852	0.215240	0.299852	0.215240
98	0.315296	0.223947	98	0.315296	0.223947	0.223947	0.283905	0.205379	0.315296	0.205379	0.315296	0.223947	0.315296	0.223947	0.315296	0.223947
99	0.330207	0.231387	99	0.330207	0.231387	0.231387	0.299852	0.215240	0.330207	0.215240	0.330207	0.231387	0.330207	0.231387	0.330207	0.231387
100	0.344556	0.237467	100	0.344556	0.237467	0.237467	0.315296	0.223947	0.344556	0.223947	0.344556	0.237467	0.344556	0.237467	0.344556	0.237467
101	0.358628	0.244834	101	0.358628	0.244834	0.244834	0.330207	0.231387	0.358628	0.231387	0.358628	0.244834	0.358628	0.244834	0.358628	0.244834
102	0.371685	0.254498	102	0.371685	0.254498	0.254498	0.344556	0.237467	0.371685	0.237467	0.371685	0.254498	0.371685	0.254498	0.371685	0.254498
103	0.383040	0.266044	103	0.383040	0.266044	0.266044	0.358628	0.244834	0.383040	0.244834	0.383040	0.266044	0.383040	0.266044	0.383040	0.266044
104	0.392003	0.279055	104	0.392003	0.279055	0.279055	0.371685	0.254498	0.392003	0.254498	0.392003	0.279055	0.392003	0.279055	0.392003	0.279055
105	0.397886	0.293116	105	0.397886	0.293116	0.293116	0.383040	0.266044	0.397886	0.266044	0.397886	0.293116	0.397886	0.293116	0.397886	0.293116
106	0.400000	0.307811	106	0.400000	0.307811	0.307811	0.392003	0.279055	0.400000	0.279055	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811
107	0.400000	0.322725	107	0.400000	0.322725	0.322725	0.397886	0.293116	0.400000	0.293116	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725
108	0.400000	0.337441	108	0.400000	0.337441	0.337441	0.400000	0.307811	0.400000	0.307811	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441
109	0.400000	0.351544	109	0.400000	0.351544	0.351544	0.400000	0.322725	0.400000	0.322725	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544
110	0.400000	0.364617	110	0.400000	0.364617	0.364617	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Disabled Mortality															
		Age Offset		(Years -->		PERS - all plans		TRS - all plans		SERS - all plans		LEOFF - all plans		WSP - all plans	
		Minimum		Probability		Male		Female		Male		Female		Male	
Age	Male	Female	Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	0.000345	0.000191	20	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
21	0.000357	0.000192	21	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
22	0.000366	0.000194	22	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
23	0.000373	0.000197	23	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
24	0.000376	0.000201	24	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
25	0.000376	0.000207	25	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
26	0.000378	0.000214	26	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
27	0.000382	0.000223	27	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
28	0.000393	0.000235	28	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
29	0.000412	0.000248	29	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
30	0.000444	0.000264	30	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
31	0.000499	0.000307	31	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
32	0.000562	0.000350	32	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
33	0.000631	0.000394	33	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
34	0.000702	0.000435	34	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
35	0.000773	0.000475	35	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
36	0.000841	0.000514	36	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
37	0.000904	0.000554	37	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
38	0.000964	0.000598	38	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
39	0.001021	0.000648	39	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
40	0.001079	0.000706	40	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
41	0.001142	0.000774	41	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
42	0.001215	0.000852	42	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
43	0.001299	0.000937	43	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000
44	0.001397	0.001029	44	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000	0.005000	0.005000

**Disabled Mortality**

(Continued)

		Disabled Mortality													
		Age Offset (Years) -->				PERS - all plans		TRS - all plans		SERS - all plans		LEOFF - all plans		WSP - all plans	
		Minimum Probability		0.05	0.035	Male		Female		Male		Female		Male	
RP-2000 Mortality Rates	Combined Healthy	Age	Male	Female	Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
		45	0.001508	0.001124	45	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		46	0.001616	0.001223	46	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		47	0.001734	0.001326	47	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		48	0.001860	0.001434	48	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		49	0.001995	0.001550	49	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		50	0.002138	0.001676	50	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		51	0.002449	0.001852	51	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		52	0.002667	0.002018	52	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		53	0.002916	0.002207	53	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		54	0.003196	0.002424	54	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		55	0.003624	0.002717	55	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005000	0.005000	0.005000	0.005000
		56	0.004200	0.003090	56	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005273	0.005000	0.005273	0.005000
		57	0.004693	0.003478	57	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.005945	0.005000	0.005945	0.005000
		58	0.005273	0.003923	58	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.006747	0.005055	0.006747	0.005055
		59	0.005945	0.004441	59	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.007676	0.005814	0.007676	0.005814
		60	0.006747	0.005055	60	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.008757	0.006657	0.008757	0.006657
		61	0.007676	0.005814	61	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.010012	0.007648	0.010012	0.007648
		62	0.008757	0.006657	62	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.011280	0.008619	0.011280	0.008619
		63	0.010012	0.007648	63	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.012737	0.009706	0.012737	0.009706
		64	0.011280	0.008619	64	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.014409	0.010954	0.014409	0.010954
		65	0.012737	0.009706	65	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.016075	0.012163	0.016075	0.012163
		66	0.014409	0.010954	66	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.017871	0.013445	0.017871	0.013445
		67	0.016075	0.012163	67	0.050000	0.035000	0.030000	0.017500	0.030000	0.030000	0.019802	0.014860	0.019802	0.014860
		68	0.017871	0.013445	68	0.050000	0.035000	0.030387	0.017500	0.030000	0.022206	0.016742	0.022206	0.016742	
		69	0.019802	0.014860	69	0.050000	0.035000	0.033900	0.018579	0.030000	0.024570	0.018579	0.024570	0.018579	

RP-2000 Mortality Rates										Disabled Mortality (Continued)									
Age	Combined Healthy		Age Offset		PERS - all plans		TRS - all plans		SERS - all plans		LEOFF - all plans		WSP - all plans						
	Male	Female	(Years) -->	6	6	5	2	5	2	0.03	0.03	0.005	0.005	0.005	0.005	0.005	0.005		
70	0.022206	0.016742	70	0.050000	0.035000	0.035	0.03	0.0175	0.03	0.03	0.03	0.005	0.005	0.005	0.005	0.005	0.005		
71	0.024570	0.018579	71	0.050000	0.035000	0.042	0.042	0.02970	0.042	0.042	0.042	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000		
72	0.027281	0.020665	72	0.052123	0.037595	0.046	0.046	0.025458	0.046	0.046	0.046	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000		
73	0.030387	0.022970	73	0.057927	0.041506	0.052	0.052	0.028106	0.052	0.052	0.052	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000		
74	0.033900	0.025458	74	0.064368	0.045879	0.057	0.057	0.027927	0.030	0.030	0.030	0.030966	0.030966	0.030966	0.030966	0.030966	0.030966		
75	0.037834	0.028106	75	0.072041	0.050780	0.064	0.064	0.034105	0.064	0.064	0.064	0.034105	0.034105	0.034105	0.034105	0.034105	0.034105		
76	0.042169	0.030966	76	0.080486	0.056294	0.072	0.072	0.037595	0.072	0.072	0.072	0.037595	0.037595	0.037595	0.037595	0.037595	0.037595		
77	0.046906	0.034105	77	0.089718	0.062506	0.080	0.080	0.041506	0.080	0.080	0.080	0.041506	0.041506	0.041506	0.041506	0.041506	0.041506		
78	0.052123	0.037595	78	0.099779	0.069517	0.089	0.089	0.045879	0.089	0.089	0.089	0.045879	0.045879	0.045879	0.045879	0.045879	0.045879		
79	0.057927	0.041506	79	0.110757	0.077446	0.099	0.099	0.050780	0.099	0.099	0.099	0.050780	0.050780	0.050780	0.050780	0.050780	0.050780		
80	0.064368	0.045879	80	0.122797	0.086376	0.110	0.110	0.056294	0.110	0.110	0.110	0.056294	0.056294	0.056294	0.056294	0.056294	0.056294		
81	0.072041	0.050780	81	0.136043	0.096337	0.122	0.122	0.062506	0.122	0.122	0.122	0.062506	0.062506	0.062506	0.062506	0.062506	0.062506		
82	0.08486	0.056294	82	0.150590	0.107303	0.136	0.136	0.069517	0.136	0.136	0.136	0.069517	0.069517	0.069517	0.069517	0.069517	0.069517		
83	0.089718	0.062506	83	0.166420	0.119154	0.150	0.150	0.077446	0.150	0.150	0.150	0.077446	0.077446	0.077446	0.077446	0.077446	0.077446		
84	0.099779	0.069517	84	0.183408	0.131682	0.166	0.166	0.086376	0.166	0.166	0.166	0.086376	0.086376	0.086376	0.086376	0.086376	0.086376		
85	0.110757	0.077446	85	0.199769	0.144604	0.183	0.183	0.096337	0.183	0.183	0.183	0.096337	0.096337	0.096337	0.096337	0.096337	0.096337		
86	0.122797	0.086376	86	0.216605	0.157618	0.199	0.199	0.107303	0.199	0.199	0.107	0.107303	0.107303	0.107303	0.107303	0.107303	0.107303		
87	0.136043	0.096337	87	0.233662	0.170433	0.216	0.216	0.119154	0.216	0.216	0.216	0.119154	0.119154	0.119154	0.119154	0.119154	0.119154		
88	0.150590	0.107303	88	0.250693	0.182799	0.233	0.233	0.131682	0.233	0.233	0.233	0.131682	0.131682	0.131682	0.131682	0.131682	0.131682		
89	0.166420	0.119154	89	0.267491	0.194509	0.250	0.250	0.144604	0.250	0.250	0.250	0.144604	0.144604	0.144604	0.144604	0.144604	0.144604		
90	0.183408	0.131682	90	0.283905	0.205379	0.267	0.267	0.157618	0.267	0.267	0.267	0.157618	0.157618	0.157618	0.157618	0.157618	0.157618		
91	0.199769	0.144604	91	0.299852	0.215240	0.283	0.283	0.170433	0.283	0.283	0.283	0.170433	0.170433	0.170433	0.170433	0.170433	0.170433		
92	0.216605	0.157618	92	0.315296	0.223947	0.299	0.299	0.182799	0.299	0.299	0.182799	0.250693	0.250693	0.250693	0.250693	0.250693	0.250693		
93	0.233662	0.170433	93	0.330207	0.231387	0.315	0.315	0.194509	0.315	0.315	0.194509	0.267491	0.267491	0.267491	0.267491	0.267491	0.267491		
94	0.250693	0.182799	94	0.344556	0.237467	0.330	0.330	0.205379	0.330	0.330	0.205379	0.283905	0.283905	0.283905	0.283905	0.283905	0.283905		

**Disabled Mortality**

(Continued)

Age Offset (Years) -->	Disabled Mortality											
	PERS - all plans				TRS - all plans				SERS - all plans			
	Minimum	Probability	Age	Male	Age	Male	Female	Male	Female	Male	Female	Male
95	0.267491	0.194509	95	0.358628	0.244834	0.344556	0.215240	0.344556	0.215240	0.299852	0.215240	0.299852
96	0.283905	0.205379	96	0.371685	0.254498	0.358628	0.223947	0.358628	0.223947	0.315296	0.223947	0.315296
97	0.299852	0.215240	97	0.383040	0.266044	0.371685	0.231387	0.371685	0.231387	0.330207	0.231387	0.330207
98	0.315296	0.223947	98	0.392003	0.279055	0.383040	0.237467	0.383040	0.237467	0.344556	0.237467	0.344556
99	0.330207	0.231387	99	0.397886	0.293116	0.392003	0.244834	0.392003	0.244834	0.358628	0.244834	0.358628
100	0.344556	0.237467	100	0.400000	0.307811	0.397886	0.254498	0.397886	0.254498	0.371685	0.254498	0.371685
101	0.358628	0.244834	101	0.400000	0.322725	0.400000	0.266044	0.400000	0.266044	0.383040	0.266044	0.383040
102	0.371685	0.254498	102	0.400000	0.337441	0.400000	0.279055	0.400000	0.279055	0.392003	0.279055	0.392003
103	0.383040	0.266044	103	0.400000	0.351544	0.400000	0.293116	0.400000	0.293116	0.397886	0.293116	0.397886
104	0.392003	0.279055	104	0.400000	0.364617	0.400000	0.307811	0.400000	0.307811	0.400000	0.307811	0.400000
105	0.397886	0.293116	105	0.400000	0.376246	0.400000	0.322725	0.400000	0.322725	0.400000	0.322725	0.400000
106	0.400000	0.307811	106	0.400000	0.386015	0.400000	0.337441	0.400000	0.337441	0.400000	0.337441	0.400000
107	0.400000	0.322725	107	0.400000	0.393507	0.400000	0.351544	0.400000	0.351544	0.400000	0.351544	0.400000
108	0.400000	0.337441	108	0.400000	0.398308	0.400000	0.364617	0.400000	0.364617	0.400000	0.364617	0.400000
109	0.400000	0.351544	109	0.400000	0.400000	0.400000	0.376246	0.400000	0.376246	0.400000	0.376246	0.400000
110	0.400000	0.364617	110	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Age	Probability of Disability											
	PERS		TRIS		SERS		LEOFF		WSP			
	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 1	Plan 2/3	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2
20	0.000000	0.000000	0.000000	0.000000	0.000013	0.000014	0.000003	0.000003	0.000000	0.000000	0.000022	0.001000
21	0.000000	0.000000	0.000000	0.000000	0.000020	0.000020	0.000005	0.000004	0.000000	0.000000	0.000022	0.001000
22	0.000000	0.000000	0.000000	0.000000	0.000029	0.000030	0.000008	0.000006	0.000000	0.000000	0.000022	0.001000
23	0.000000	0.000000	0.000017	0.000000	0.000043	0.000043	0.000011	0.000009	0.000000	0.000000	0.000022	0.001000
24	0.000000	0.000000	0.000035	0.000000	0.000062	0.000062	0.000016	0.000013	0.000000	0.000000	0.000022	0.001000
25	0.000000	0.000000	0.000052	0.000000	0.000091	0.000092	0.000024	0.000019	0.000000	0.000000	0.000022	0.001000
26	0.000000	0.000000	0.000069	0.000000	0.000106	0.000107	0.000027	0.000022	0.000000	0.000000	0.002397	0.000024
27	0.000000	0.000000	0.000086	0.000000	0.000122	0.000123	0.000032	0.000026	0.000000	0.000000	0.003793	0.000026
28	0.000000	0.000000	0.000096	0.000019	0.000141	0.000142	0.000036	0.000030	0.000000	0.000016	0.005187	0.000028
29	0.000000	0.000000	0.000106	0.000037	0.000162	0.000164	0.000042	0.000034	0.000000	0.000032	0.006578	0.000031
30	0.000000	0.000000	0.000115	0.000056	0.000187	0.000190	0.000048	0.000040	0.000000	0.000048	0.007968	0.000033
31	0.000000	0.000000	0.000125	0.000074	0.000209	0.000212	0.000054	0.000044	0.000000	0.000064	0.009356	0.000035
32	0.000000	0.000000	0.000135	0.000093	0.000233	0.000236	0.000060	0.000050	0.000000	0.000080	0.010742	0.000037
33	0.000000	0.000000	0.000142	0.000126	0.000258	0.000262	0.000067	0.000055	0.000027	0.000112	0.012126	0.000039
34	0.000000	0.000000	0.000149	0.000160	0.000288	0.000292	0.000074	0.000061	0.000054	0.000144	0.013508	0.000042
35	0.000310	0.000319	0.000156	0.000194	0.000321	0.000326	0.000083	0.000068	0.000081	0.000176	0.014888	0.000044
36	0.000367	0.000377	0.000164	0.000228	0.000340	0.000345	0.000088	0.000072	0.000108	0.000208	0.016267	0.000050
37	0.000432	0.000445	0.000171	0.000262	0.000360	0.000365	0.000093	0.000077	0.000135	0.000241	0.019033	0.000057
38	0.000508	0.000522	0.000192	0.000266	0.000382	0.000387	0.000099	0.000081	0.000176	0.000215	0.020514	0.000066
39	0.000593	0.000610	0.000213	0.000271	0.000404	0.000410	0.000105	0.000086	0.000217	0.000190	0.021994	0.000077
40	0.000762	0.000710	0.000235	0.000275	0.000428	0.000434	0.000111	0.000091	0.000258	0.000164	0.023471	0.000088
41	0.000873	0.000823	0.000256	0.000279	0.000502	0.000509	0.000130	0.000107	0.000300	0.000139	0.024946	0.000098
42	0.000983	0.001257	0.000277	0.000283	0.000588	0.000596	0.000152	0.000125	0.000341	0.000113	0.026419	0.000109
43	0.001149	0.001315	0.000344	0.000345	0.000688	0.000698	0.000178	0.000146	0.000416	0.000143	0.027889	0.000123
44	0.001315	0.001373	0.000410	0.000406	0.000806	0.000817	0.000208	0.000171	0.000492	0.000172	0.036042	0.000138
45	0.001481	0.001431	0.000476	0.000467	0.000944	0.000957	0.000244	0.000201	0.000568	0.000201	0.042372	0.000153
46	0.001647	0.001489	0.000542	0.000528	0.001054	0.001068	0.000272	0.000224	0.000643	0.000231	0.048661	0.000197
47	0.001813	0.001547	0.000609	0.000589	0.001176	0.001192	0.000304	0.000250	0.000719	0.000260	0.054909	0.000256
48	0.002056	0.002039	0.000713	0.000727	0.001312	0.001330	0.000339	0.000279	0.000846	0.000419	0.061118	0.000328
49	0.002299	0.002531	0.000817	0.000865	0.001464	0.001483	0.000378	0.000311	0.000974	0.000579	0.067287	0.000424

No TRS Plan 1 or PERS Plan 1 disabilities are assumed for members beyond 60 years of age. Ten percent of all PERS Plan 1 disabilities are assumed to be duty related.

LEOFF Plan 1 disability retirements are assumed to continue after service retirement begins.

## Probability of Disablement

(Continued)

Age	PERS												TRS												SERS											
	Plan 1						Plan 2/3						Plan 1						Plan 2/3						Plan 1						Plan 2					
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female												
50	0.005542	0.003023	0.000922	0.001003	0.001634	0.001656	0.000422	0.000347	0.001102	0.000738	0.073417	0.000547	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000				
51	0.002784	0.003514	0.001026	0.001141	0.001885	0.001911	0.000487	0.000401	0.001230	0.000897	0.079508	0.000628	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000				
52	0.003027	0.004006	0.001131	0.001278	0.002177	0.002207	0.000563	0.000463	0.001357	0.001057	0.085561	0.000722	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000				
53	0.004768	0.004808	0.001631	0.001780	0.002512	0.002546	0.000649	0.000534	0.002048	0.001664	0.091576	0.000851	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000				
54	0.006505	0.005610	0.002130	0.002281	0.002900	0.002939	0.000750	0.000617	0.002738	0.0002270	0.097553	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000				
55	0.008240	0.006411	0.002630	0.002782	0.003347	0.003393	0.000866	0.000712	0.003428	0.0002876	0.103493	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000				
56	0.009972	0.007211	0.003129	0.003283	0.003580	0.003629	0.000926	0.000762	0.004117	0.003482	0.109395	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000				
57	0.011701	0.008011	0.003628	0.003783	0.003829	0.003881	0.000990	0.000814	0.004805	0.0004087	0.115262	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
58	0.011701	0.007508	0.004955	0.005084	0.004096	0.004151	0.001059	0.000871	0.006303	0.004588	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
59	0.011701	0.007005	0.006280	0.006384	0.004381	0.004440	0.001133	0.000932	0.007799	0.005089	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
60	0.011701	0.006502	0.007603	0.007681	0.004686	0.004750	0.001212	0.000997	0.009292	0.005589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
61	0.011701	0.005998	0.008925	0.008977	0.005219	0.005290	0.001349	0.001110	0.010783	0.006089	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
62	0.011701	0.005495	0.010244	0.010271	0.005814	0.005892	0.001503	0.001237	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
63	0.011701	0.005495	0.010244	0.010271	0.006475	0.006563	0.001674	0.001377	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
64	0.011701	0.005495	0.010244	0.010271	0.007213	0.007311	0.001865	0.001534	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
65	0.011701	0.005495	0.010244	0.010271	0.000000	0.000000	0.000000	0.000000	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
66	0.011701	0.005495	0.010244	0.010271	0.000000	0.000000	0.000000	0.000000	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
67	0.011701	0.005495	0.010244	0.010271	0.000000	0.000000	0.000000	0.000000	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
68	0.011701	0.005495	0.010244	0.010271	0.000000	0.000000	0.000000	0.000000	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
69	0.011701	0.005495	0.010244	0.010271	0.000000	0.000000	0.000000	0.000000	0.012272	0.006589	0.121663	0.000951	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000	0.001000					
70	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000					

No TRS Plan 1 disabilities are assumed for members beyond 60 years of age. Ten percent of all PERS Plan 1 disabilities are assumed to continue after service retirement begins.

Service Years	Probability of Termination							
	PERS - all plans		TRS - all plans		SERS - all plans			
	Male	Female	Male	Female	Male	Female		
0	0.2590	0.2639	0.0965	0.1000	0.2590	0.1945	0.1043	0.0243
1	0.1546	0.1672	0.0600	0.0700	0.1609	0.1287	0.0469	0.0243
2	0.1020	0.1172	0.0400	0.0550	0.1154	0.1007	0.0237	0.0243
3	0.0769	0.0925	0.0400	0.0450	0.1007	0.0760	0.0208	0.0243
4	0.0639	0.0769	0.0350	0.0400	0.0852	0.0658	0.0198	0.0243
5	0.0531	0.0653	0.0300	0.0350	0.0728	0.0597	0.0194	0.0138
6	0.0435	0.0587	0.0220	0.0300	0.0606	0.0531	0.0194	0.0138
7	0.0407	0.0531	0.0210	0.0260	0.0559	0.0521	0.0194	0.0138
8	0.0373	0.0469	0.0200	0.0200	0.0493	0.0483	0.0167	0.0138
9	0.0354	0.0411	0.0190	0.0195	0.0464	0.0464	0.0167	0.0138
10	0.0325	0.0387	0.0180	0.0190	0.0426	0.0450	0.0167	0.0087
11	0.0310	0.0354	0.0180	0.0170	0.0402	0.0445	0.0142	0.0087
12	0.0305	0.0315	0.0100	0.0140	0.0383	0.0440	0.0142	0.0087
13	0.0286	0.0310	0.0100	0.0140	0.0373	0.0440	0.0142	0.0087
14	0.0276	0.0300	0.0100	0.0140	0.0325	0.0421	0.0099	0.0087
15	0.0266	0.0286	0.0100	0.0140	0.0296	0.0426	0.0099	0.0064
16	0.0237	0.0262	0.0095	0.0110	0.0266	0.0378	0.0099	0.0064
17	0.0213	0.0227	0.0090	0.0090	0.0242	0.0344	0.0070	0.0064
18	0.0183	0.0198	0.0080	0.0090	0.0203	0.0310	0.0070	0.0064
19	0.0149	0.0173	0.0070	0.0090	0.0159	0.0262	0.0070	0.0064
20	0.0114	0.0144	0.0050	0.0050	0.0124	0.0203	0.0070	0.0019
21	0.0095	0.0114	0.0050	0.0050	0.0114	0.0159	0.0070	0.0019
22	0.0075	0.0095	0.0050	0.0050	0.0085	0.0129	0.0070	0.0019
23	0.0060	0.0080	0.0050	0.0050	0.0065	0.0085	0.0070	0.0019
24	0.0055	0.0055	0.0050	0.0050	0.0065	0.0075	0.0070	0.0019

**Probability of Termination**

(continued)

Service Years	PERS - all plans		TRS - all plans		SERS - all plans		LEOFF - all plans		WSP - all plans	
	Male	Female	Male	Female	Male	Female	Male & Female	Male & Female	Male & Female	Male & Female
25	0.0050	0.0045	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
26	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
27	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
28	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
29	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
30	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
31	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
32	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
33	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
34	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
35	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
36	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
37	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
38	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
39	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
40	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
41	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
42	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
43	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
44	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
45	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
46	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
47	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
48	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
49	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000
50	0.0040	0.0040	0.0050	0.0050	0.0050	0.0050	0.0075	0.0070	0.0000	0.0000

Probability of Vesting upon Termination (for those not eligible to early retire)									
Service Years	PERS		TRS		SERS		LEOFF		WSP
	Plan 1	Plan 2	Plan 1	Plan 2	Plan 2	Plan 2	Male & Female	Male & Female	Male & Female
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.65	0.60	0.50	0.50	0.00	0.00	0.00
5	0.35	0.35	0.65	0.60	0.50	0.50	0.15	0.15	0.15
6	0.45	0.35	0.75	0.60	0.55	0.55	0.15	0.15	0.15
7	0.45	0.40	0.75	0.60	0.55	0.55	0.15	0.15	0.15
8	0.45	0.40	0.75	0.65	0.55	0.55	0.15	0.15	0.15
9	0.45	0.45	0.75	0.65	0.60	0.60	0.15	0.15	0.15
10	0.45	0.45	0.75	0.65	0.60	0.60	0.15	0.15	0.15
11	0.45	0.45	0.75	0.65	0.60	0.60	0.15	0.15	0.15
12	0.45	0.45	0.75	0.70	0.60	0.60	0.15	0.15	0.15
13	0.45	0.45	0.85	0.70	0.65	0.65	0.15	0.15	0.15
14	0.55	0.45	0.85	0.70	0.65	0.65	0.15	0.15	0.15
15	0.55	0.50	0.85	0.70	0.70	0.70	0.15	0.15	0.15
16	0.60	0.50	0.85	0.80	0.70	0.70	0.15	0.15	0.15
17	0.60	0.55	0.85	0.80	0.70	0.70	0.15	0.15	0.15
18	0.60	0.55	0.85	0.85	0.70	0.70	0.35	0.35	0.35
19	0.60	0.60	0.85	0.85	0.70	0.70	0.35	0.35	0.35
20	0.60	0.60	0.90	0.90	0.75	0.75	0.75	0.75	0.75
21	0.60	0.60	0.90	0.90	0.80	0.80	1.00	1.00	1.00
22	0.60	0.60	0.90	0.90	0.80	0.80	1.00	1.00	1.00
23	0.60	0.60	0.90	0.90	0.80	0.80	1.00	1.00	1.00
24	0.60	0.60	0.90	0.90	0.80	0.80	1.00	1.00	1.00

For TRS & SERS, service is as of the beginning of the year, and exit is assumed to occur at the end of the year.

**Probability of Vesting upon Termination**

(for those not eligible to early retire - Continued))

Service Years	PERS	TRS				SERS				LEOFF		WSP	
		Plan 1		Plan 2		Plan 1		Plan 2		Plan 2			
		Male & Female											
25	0.65	0.65	0.65	0.90	0.90	0.90	0.90	0.80	0.80	1.00	1.00	1.00	
26	0.65	0.65	0.65	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	
27	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
28	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
29	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
31	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
32	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
35	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
36	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
38	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
39	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
41	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
42	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
43	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
45	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
46	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
47	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
49	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

For TRS &amp; SERS, service is as of the beginning of the year, and exit is assumed to occur at the end of the year

Service Years	Step Salary Increases						WSP - All Plans		
	PERS - All Plans	TRS - All Plans	Salary Ratio	% Increase	TRRS - All Plans	SERS - All Plans	Salary Ratio	% Increase	LEOFF - All Plans
1 6.10%	1.275	6.20%	1.476	7.00%	1.280	11.70%	1.810	6.00%	1.678
2 4.80%	1.201	4.40%	1.390	3.90%	1.196	8.10%	1.621	6.00%	1.583
3 3.80%	1.146	4.20%	1.331	2.80%	1.151	6.60%	1.499	6.00%	1.493
4 2.90%	1.104	3.50%	1.278	2.30%	1.120	4.50%	1.406	6.00%	1.409
5 2.10%	1.073	3.10%	1.235	2.20%	1.095	3.20%	1.346	6.00%	1.329
6 1.30%	1.051	2.70%	1.197	1.50%	1.071	2.50%	1.304	6.00%	1.254
7 1.00%	1.038	2.60%	1.166	1.20%	1.055	2.20%	1.272	1.30%	1.183
8 0.80%	1.027	2.30%	1.136	1.00%	1.043	2.00%	1.245	1.30%	1.168
9 0.60%	1.019	2.10%	1.111	0.80%	1.032	2.00%	1.221	1.30%	1.153
10 0.40%	1.013	1.90%	1.088	0.70%	1.024	2.00%	1.197	1.30%	1.138
11 0.30%	1.009	1.70%	1.068	0.70%	1.017	1.90%	1.173	1.30%	1.123
12 0.20%	1.006	1.60%	1.050	0.30%	1.010	1.80%	1.151	1.30%	1.109
13 0.10%	1.004	1.40%	1.033	0.30%	1.007	1.70%	1.131	1.30%	1.095
14 0.10%	1.003	0.90%	1.019	0.20%	1.004	1.60%	1.112	1.30%	1.081
15 0.10%	1.002	0.80%	1.010	0.10%	1.002	1.60%	1.095	1.30%	1.067
16 0.10%	1.001	0.20%	1.002	0.10%	1.001	1.60%	1.077	1.30%	1.053
17 0.00%	1.000	0.00%	1.000	0.00%	1.000	1.60%	1.060	1.30%	1.040
18 0.00%	1.000	0.00%	1.000	0.00%	1.000	1.60%	1.044	1.30%	1.026
19 0.00%	1.000	0.00%	1.000	0.00%	1.000	1.40%	1.027	1.30%	1.013
20 0.00%	1.000	0.00%	1.000	0.00%	1.000	1.30%	1.013	0.00%	1.000
21+	0.00%	1.000	0.00%	1.000	0.00%	1.000	0.00%	1.000	0.00%

## Ratio of Survivors Selecting Annuities\*

Age	PERS 1		PERS 2		PERS 3		TRS 1		TRS 2		TRS 3		SERS 2		SERS 3		LEOFF 1		LEOFF 2		WSP 1		WSP 2			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Both	Both	Both	Both	Both	Both	Both	Both		
20	0.00	0.00	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.20	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	0.00	0.00	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
27	0.00	0.00	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	0.00	0.00	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
29	0.00	0.00	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.48	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	0.00	0.00	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
31	0.00	0.00	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	0.00	0.00	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
33	0.00	0.00	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
34	0.00	0.00	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.64	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35	0.00	0.00	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
36	0.00	0.00	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
37	0.00	0.00	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
38	0.00	0.00	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
39	0.00	0.00	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.72	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	0.45	0.10	0.05	0.00	0.77	0.76	0.65	0.55	0.00	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.60	0.60	0.60	
41	0.45	0.10	0.05	0.00	0.77	0.76	0.65	0.55	0.00	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.60	0.60	0.60	
42	0.45	0.10	0.05	0.00	0.77	0.76	0.65	0.55	0.00	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.60	0.60	0.60	
43	0.45	0.10	0.05	0.00	0.77	0.76	0.65	0.55	0.00	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.60	0.60	0.60	
44	0.45	0.10	0.05	0.00	0.77	0.76	0.65	0.55	0.00	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.77	0.76	0.05	0.00	0.60	0.60	0.60	
45	0.55	0.40	0.05	0.00	0.79	0.76	0.65	0.55	0.00	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.60	0.60	0.60	
46	0.55	0.40	0.05	0.00	0.79	0.76	0.65	0.55	0.00	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.60	0.60	0.60	
47	0.55	0.40	0.05	0.00	0.79	0.76	0.65	0.55	0.00	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.60	0.60	0.60	
48	0.55	0.40	0.05	0.00	0.79	0.76	0.65	0.55	0.00	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.60	0.60	0.60	
49	0.55	0.40	0.05	0.00	0.79	0.76	0.65	0.55	0.00	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.79	0.76	0.05	0.00	0.60	0.60	0.60	
50	0.65	0.45	0.20	0.10	0.80	0.76	0.76	0.65	0.45	0.00	0.15	0.80	0.76	0.20	0.10	0.80	0.76	0.20	0.10	0.80	0.76	0.20	0.10	0.60	0.60	0.60

\*Refers to survivor who selects annuity payments (rather than a lump sum payment) upon active or terminated vested member's death.

## Ratio of Survivors Selecting Annuities\*

(Continued)

Age	PERS 1		PERS 2		PERS 3		TRS 1		TRS 2		TRS 3		SERS 2		SERS 3		LEOFF 1		LEOFF 2		WSP 1		WSP 2	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Both	Both	Both	Both	Both	Both	Both	Both
51	0.65	0.45	0.20	0.10	0.80	0.76	0.65	0.45	0.00	0.15	0.80	0.76	0.20	0.10	0.80	0.76	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
52	0.65	0.45	0.20	0.10	0.80	0.76	0.65	0.45	0.00	0.15	0.80	0.76	0.20	0.10	0.80	0.76	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
53	0.65	0.45	0.20	0.10	0.80	0.76	0.65	0.45	0.00	0.15	0.80	0.76	0.20	0.10	0.80	0.76	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
54	0.65	0.45	0.20	0.10	0.80	0.76	0.65	0.45	0.00	0.15	0.80	0.76	0.20	0.10	0.80	0.76	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
55	0.70	0.45	0.40	0.20	0.81	0.72	0.65	0.45	0.50	0.40	0.81	0.72	0.40	0.20	0.81	0.72	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
56	0.70	0.45	0.40	0.20	0.81	0.72	0.65	0.45	0.50	0.40	0.81	0.72	0.40	0.20	0.81	0.72	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
57	0.70	0.45	0.40	0.20	0.81	0.72	0.65	0.45	0.50	0.40	0.81	0.72	0.40	0.20	0.81	0.72	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
58	0.70	0.45	0.40	0.20	0.81	0.72	0.65	0.45	0.50	0.40	0.81	0.72	0.40	0.20	0.81	0.72	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
59	0.70	0.45	0.40	0.20	0.81	0.72	0.65	0.45	0.50	0.40	0.81	0.72	0.40	0.20	0.81	0.72	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
60	0.70	0.45	0.65	0.20	0.81	0.67	0.75	0.35	0.75	0.50	0.81	0.67	0.65	0.20	0.81	0.67	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
61	0.70	0.45	0.65	0.20	0.81	0.67	0.75	0.35	0.75	0.50	0.81	0.67	0.65	0.20	0.81	0.67	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
62	0.70	0.45	0.65	0.20	0.81	0.67	0.75	0.35	0.75	0.50	0.81	0.67	0.65	0.20	0.81	0.67	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
63	0.70	0.45	0.65	0.20	0.81	0.67	0.75	0.35	0.75	0.50	0.81	0.67	0.65	0.20	0.81	0.67	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
64	0.70	0.45	0.65	0.20	0.81	0.67	0.75	0.35	0.75	0.50	0.81	0.67	0.65	0.20	0.81	0.67	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
65	0.70	0.45	0.65	0.20	0.79	0.58	0.75	0.35	0.75	0.67	0.79	0.58	0.65	0.20	0.79	0.58	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
66	0.70	0.45	0.65	0.20	0.79	0.58	0.75	0.35	0.75	0.67	0.79	0.58	0.65	0.20	0.79	0.58	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
67	0.70	0.45	0.65	0.20	0.79	0.58	0.75	0.35	0.75	0.67	0.79	0.58	0.65	0.20	0.79	0.58	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
68	0.70	0.45	0.65	0.20	0.79	0.58	0.75	0.35	0.75	0.67	0.79	0.58	0.65	0.20	0.79	0.58	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
69	0.70	0.45	0.65	0.20	0.79	0.58	0.75	0.35	0.75	0.67	0.79	0.58	0.65	0.20	0.79	0.58	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
70	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
71	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
72	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
73	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
74	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
75	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
76	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
77	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
78	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
79	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60
80	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.25	0.60	0.60	0.60	0.60	0.60	0.60

\*Refers to survivor who selects annuity payments (rather than a lump sum payment) upon active or terminated vested member's death.

## Ratio of Survivors Selecting Annuities\*

(Continued)

Age	PERS 1		PERS 2		PERS 3		TRS 1		TRS 2		TRS 3		SERS 2		SERS 3		LEOFF 1		LEOFF 2		WSP 1		WSP 2	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Both	Both	Both	Both	Both	Both	Both	Both	Both	Both
81	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
82	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
83	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
84	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
85	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
86	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
87	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
88	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
89	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
90	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
91	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
92	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
93	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
94	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
95	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
96	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
97	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
98	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60
99	0.70	0.45	0.65	0.20	0.77	0.47	0.75	0.35	0.75	0.67	0.77	0.47	0.65	0.20	0.77	0.47	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.60

\*Refers to survivor who selects annuity payments (rather than a lump sum payment) upon active or terminated vested member's death.

Early Retirement Reduction Factors				Early Retirement Reduction Factors			
Years Early	Plan 2/3, PERS 1 TrmVst	LEOFF2, PERS1, TRS1, WSP TrmVst	Plan 2/3 Subsidized 3%*	Years	Plan 2/3, PERS 1 TrmVst	LEOFF2, PERS1, TRS1, WSP TrmVst	Plan 2/3 Subsidized 3%*
0	1.0000	1.0000	1.00	25	0.1100	0.1400	N/A
1	0.9100	0.9200	0.97	26	0.1000	0.1300	N/A
2	0.8200	0.8400	0.94	27	0.1000	0.1200	N/A
3	0.7300	0.7600	0.91	28	0.1000	0.1100	N/A
4	0.6700	0.7100	0.88	29	0.1000	0.1000	N/A
5	0.6100	0.6600	0.85	30	0.1000	0.1000	N/A
6	0.5500	0.6100	0.82	31	0.1000	0.1000	N/A
7	0.4900	0.5600	0.79	32	0.1000	0.1000	N/A
8	0.4300	0.5100	0.76	33	0.1000	0.1000	N/A
9	0.4000	0.4700	0.73	34	0.1000	0.1000	N/A
10	0.3700	0.4300	0.70	35	0.1000	0.1000	N/A
11	0.3400	0.3900	N/A	36	0.1000	0.1000	N/A
12	0.3100	0.3500	N/A	37	0.1000	0.1000	N/A
13	0.2800	0.3100	N/A	38	0.1000	0.1000	N/A
14	0.2600	0.2900	N/A	39	0.1000	0.1000	N/A
15	0.2400	0.2700	N/A	40	0.1000	0.1000	N/A
16	0.2200	0.2500	N/A	41	0.1000	0.1000	N/A
17	0.2000	0.2300	N/A	42	0.1000	0.1000	N/A
18	0.1800	0.2100	N/A	43	0.1000	0.1000	N/A
19	0.1700	0.2000	N/A	44	0.1000	0.1000	N/A
20	0.1600	0.1900	N/A	45	0.1000	0.1000	N/A
21	0.1500	0.1800	N/A	46	0.1000	0.1000	N/A
22	0.1400	0.1700	N/A	47	0.1000	0.1000	N/A
23	0.1300	0.1600	N/A	48	0.1000	0.1000	N/A
24	0.1200	0.1500	N/A	49	0.1000	0.1000	N/A

*TrmVst=Terminated Vested.**\*LEOFF 2 members must be at least age 50 with 20 or more years of service to qualify.**All other plan 2/3 members must be at least 55 with 30 years of service to qualify.**TrmVst=Terminated Vested.**\*LEOFF 2 members must be at least age 50 with 20 or more years of service to qualify.**All other plan 2/3 members must be at least 55 with 30 years of service to qualify.*

<b>Portability Load</b>			
System	Plan 1	Plan 2	Plan 3
PERS	0.2%	0.3%	0.3%
TRS	0.3%	0.1%	0.1%
SERS	N/A	0.3%	0.3%
LEOFF	N/A	0.1%	N/A
WSP	0.0%	N/A	N/A

Reflects portability provisions for each plan

<b>AFC Load</b>	
System/Plan	Load
PERS 1	5.0%
TRS 1	1.0%
WSP	7.5%

Reflects allowances for cashouts of annual and sick leave for calculation of Average Final Compensation

### **Certain and Life Annuities: Years Certain**

System	Plan 1	Plan 2
PERS	3	3
TRS	11*	4
SERS	N/A	3
LEOFF	N/A	5

\*Only disabled members get this without a reduction in their benefit

The certain period applies to only the "annuity" portion of the benefit, typically 30% of the total benefit

<b>Military Service</b>			
	Percent with Military Service	Average Military Service Months	Overall Average Additional Service Years
<b>PERS 1*</b>			
Males	48%	37	1.48
Females	1%	35	0.03
<b>WSP**</b>	43%	32	1.15

Members with 25 years of service may receive up to 5 years of military service credit

\*Members of PERS Plan 1 may use certain prior military service as well as interruptive military service

\*\*Members of WSP Plan 1 may use all prior military service as well as interruptive military service

Members of WSP Plan 2 (those commissioned on or after January 1, 2003) may use only

interruptive military service

<b>Member/Beneficiary Age Difference (In Years)</b>		
System	Male Member	Female Member
PERS	3	(2)
TRS	3	(2)
SERS	3	(2)
LEOFF	4	(4)
WSP	3	(2)

Age difference is Member age minus Beneficiary age

<b>Duty-Related Death Assumption</b>	
System	Duty Death Rate*
PERS	0.0026%
TRS	0.0008%
SERS	0.0026%
LEOFF	8.00%
WSP	20.00%

\*PERS, TRS and SERS duty death rate is a constant probability applied, regardless of age. Nonduty death rate is obtained by subtracting duty death rate from the total mortality rate at a given age. For LEOFF and WSP, duty death rates are an assumed fixed percentage of the total mortality rate at a given age.

# Summary of Plan Provisions

Summary of Plan Provisions - PERS			
	Plan 1	Plan 2	Plan 3
<b>Effective Date of Plan</b>	10/1/47	10/1/77	3/1/02
<b>Date Closed to New Entrants</b>	9/30/77	Open	Open
<b>Statutory Reference</b>	Chapter 41.40 RCW	Chapter 41.40 RCW	Chapter 41.40 RCW
<b>Normal Retirement Eligibility (age/service)</b>	60/5, 55/25, Any Age/30	65/5	65/10 or vested
<b>Accrued Benefit Formula</b>	2% x YOS x AFC; Maximum 60% AFC	2% x YOS x AFC	1% x YOS x AFC; 0.25% per month pre-retirement COLA with 20 years of service
<b>Computation of AFC</b>	Annual average of the greatest compensation earnable during a 24 consecutive month period	Average compensation earnable for the highest 60 consecutive months	Average compensation earnable for the highest 60 consecutive months
<b>Credited Service</b>	Monthly, based on hours worked each month (school yr. for edu. emplys.)	Monthly, based on hours worked each month (school yr. for edu. emplys.)	Monthly, based on hours worked each month (school yr. for edu. emplys.)
<b>Vesting</b>	5 years	5 years	10 years (5 under select circumstances)
<b>Vested Benefits Upon Termination</b>	Refund of employee contributions plus interest, or deferred retirement allowance	Refund of employee contributions plus interest, or deferred retirement allowance	Refund of employee contributions plus interest, or deferred retirement allowance
<b>Early Retirement Eligibility (age/service)</b>	n/a	55/20	55/10
<b>Early Retirement Reduction Factors</b>	n/a	3% ERF with 30 YOS, otherwise actuarial	3% ERF with 30 YOS, otherwise actuarial
<b>Disability Retirement Benefit</b>	Non-duty: reduced accrued benefit; Duty: temporary annuity plus deferred retirement allowance	Accrued benefit, actuarially reduced	Accrued benefit, actuarially reduced
<b>COLA</b>	\$1.21 per month/YOS*** on 7/1/04	Lesser of CPI* or 3%	Lesser of CPI* or 3%
<b>Minimum Benefit per Month / YOS</b>	\$32.97*** on 7/1/04	n/a	n/a
<b>Gain-Sharing Benefit Provisions **</b>	Chapter 41.31 RCW; An additional increase in the COLA amount	n/a	Chapter 41.31A RCW; Cash transfer to the defined contribution account
<b>Changes in Plan Provisions Since Last Valuation</b>	\$1,000 minimum benefit (C 85 L 04)	None	None
<b>Benefits not Included in This Valuation</b>	Post-retirement employment	Creation of PSERS (C 242 L 04, Effective 7/1/2006)	Creation of PSERS (C 242 L 04, Effective 7/1/2006)

\*CPI: Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items

\*\*Gain-sharing is calculated every odd year; based on half the 4 year compound average annual return in excess of 10%

\*\*\*COLA increases by 3% annually; Minimum increases by amount of COLA annually

**Summary of Plan Provisions - TRS***Continued*

	<b>Plan 1</b>	<b>Plan 2</b>	<b>Plan 3</b>
<b>Effective Date of Plan</b>	3/1/38	10/1/77	7/1/96
<b>Date Closed to New Entrants</b>	9/30/77	6/30/96	Open
<b>Statutory Reference</b>	Chapter 41.32 RCW	Chapter 41.32 RCW	Chapter 41.32 RCW
<b>Normal Retirement Eligibility (age/service)</b>	60/5, 55/25, Any Age/30	65/5	65/10 or vested
<b>Accrued Benefit Formula</b>	2% x YOS x AFC; Maximum 60% AFC	2% x YOS x AFC	1% x YOS x AFC; 0.25% per month pre-retirement COLA with 20 years of service
<b>Computation of AFC</b>	Annual average earnable compensation for the two highest consecutive service credit years	Average compensation earnable for the highest 60 consecutive months	Average compensation earnable for the highest 60 consecutive months
<b>Credited Service</b>	Yearly, based on days worked each year	Monthly, based on number of months and hours worked during school year	Monthly, based on number of months and hours worked during school year
<b>Vesting</b>	5 years	5 years	10 years (5 under select circumstances)
<b>Vested Benefits Upon Termination</b>	Refund of employee contributions plus interest, or deferred retirement allowance	Refund of employee contributions plus interest, or deferred retirement allowance	Refund of employee contributions plus interest, or deferred retirement allowance
<b>Early Retirement Eligibility (age/service)</b>	n/a	55/20	55/10
<b>Early Retirement Reduction Factors</b>	n/a	3% ERF with 30 YOS, otherwise actuarial	3% ERF with 30 YOS, otherwise actuarial
<b>Disability Retirement Benefit</b>	Accrued benefit, actuarially reduced	Accrued benefit, actuarially reduced	Accrued benefit, actuarially reduced
<b>COLA</b>	\$1.21 per month/YOS*** on 7/1/04	Lesser of CPI* or 3%	Lesser of CPI* or 3%
<b>Minimum Benefit per Month / YOS</b>	\$32.97** on 7/1/04	n/a	n/a
<b>Gain-Sharing Benefit Provisions **</b>	Chapter 41.31 RCW; An additional increase in the COLA amount	n/a	Chapter 41.31A RCW; Cash transfer to the defined contribution account
<b>Changes in Plan Provisions Since Last Valuation</b>	\$1,000 minimum benefit (C85 L 04)	None	None
<b>Benefits not Included in This Valuation</b>	Post-retirement employment	None	None

\*CPI: *Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items*

\*\*Gain-sharing is calculated every odd year; based on half the 4 year compound average annual return in excess of 10%

\*\*\*COLA increases by 3% annually; Minimum increases by amount of COLA annually

**Summary of Plan Provisions - SERS***Continued*

	<b>Plan 2</b>	<b>Plan 3</b>
<b>Effective Date of Plan</b>	9/1/00	9/1/00
<b>Date Closed to New Entrants</b>	9/1/00	Open
<b>Statutory Reference</b>	Chapter 41.35 RCW	Chapter 41.35 RCW
<b>Normal Retirement Eligibility (age/service)</b>	65/5	65/10 or vested
<b>Accrued Benefit Formula</b>	2% x YOS x AFC	1% x YOS x AFC; 0.25% per month pre-retirement COLA with 20 years of service
<b>Computation of AFC</b>	Average compensation earnable for the highest 60 consecutive months	Average compensation earnable for the highest 60 consecutive months
<b>Credited Service</b>	Monthly, based on number of months and hours worked during school year	Monthly, based on number of months and hours worked during school year
<b>Vesting</b>	5 years	10 years (5 under select circumstances)
<b>Vested Benefits Upon Termination</b>	Refund of employee contributions plus interest, or deferred retirement allowance	Refund of employee contributions plus interest, or deferred retirement allowance
<b>Early Retirement Eligibility (age/service)</b>	55/20	55/10
<b>Early Retirement Reduction Factors</b>	3% ERF with 30 YOS, otherwise actuarial	3% ERF with 30 YOS, otherwise actuarial
<b>Disability Retirement Benefit</b>	Accrued benefit, actuarially reduced	Accrued benefit, actuarially reduced
<b>COLA</b>	Lesser of CPI* or 3%	Lesser of CPI* or 3%
<b>Minimum Benefit per Month / YOS</b>	n/a	n/a
<b>Gain-Sharing Benefit Provisions **</b>	n/a	Chapter 41.31A RCW; Cash transfer to the defined contribution account
<b>Changes in Plan Provisions Since Last Valuation</b>	None	None
<b>Benefits not Included in This Valuation</b>	None	None

\*CPI: Urban Wage Earners &amp; Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items

\*\*Gain-sharing is calculated every odd year; based on half the 4 year compound average annual return in excess of 10%

**Summary of Plan Provisions - LEOFF***Continued*

	<b>Plan 1</b>	<b>Plan 2</b>
<b>Effective Date of Plan</b>	3/1/70	10/1/77
<b>Date Closed to New Entrants</b>	9/30/77	Open
<b>Statutory Reference</b>	Chapter 41.26 RCW	Chapter 41.26 RCW
<b>Normal Retirement Eligibility (age/service)</b>	50/5	53/5
<b>Accrued Benefit Formula</b>	accrual % (1%, 1.5%, 2%) x YOS (5, 10, 20) x FAS; Maximum 60% FAS	2% x YOS x AFC; 0.25% per month pre-retirement COLA with 20 years of service
<b>Computation of FAS/AFC</b>	The basic salary attached to the position or rank at retirement if held for at least 12 months	Average compensation earnable for the highest 60 consecutive months
<b>Credited Service</b>	Monthly, based on hours worked each month	Monthly, based on hours worked each month
<b>Vesting</b>	5 years	5 years
<b>Vested Benefits Upon Termination</b>	Refund of employee contributions plus interest, or deferred retirement allowance	Refund of employee contributions (x 150% if 10 YOS) plus interest, or deferred retirement allowance
<b>Early Retirement Eligibility (age/service)</b>	n/a	50/20
<b>Early Retirement Reduction Factors</b>	n/a	3% ERF with 20 YOS
<b>Disability Retirement Benefit</b>	50% FAS, (max 60% if children)	Accrued benefit, actuarially reduced (minimum of 10% of AFC) if duty-related
<b>COLA</b>	Full CPI*	Lesser of CPI* or 3%
<b>Minimum Benefit per Month / YOS</b>	n/a	n/a
<b>Gain-Sharing Benefit Provisions</b>	n/a	n/a
<b>Changes in Plan Provisions Since Last Valuation</b>	None	Full line-of-duty death survivor benefit (C 5 L 04); Duty disability benefit minimum (C 4 L 04)
<b>Benefits not Included in This Valuation</b>	None	None

\*CPI: Urban Wage Earners &amp; Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items

**Summary of Plan Provisions - WSP***Continued*

	<b>Plan 1</b>	<b>Plan 2</b>
<b>Effective Date of Plan</b>	6/12/47	1/1/03
<b>Date Closed to New Entrants</b>	12/31/02	Open
<b>Statutory Reference</b>	Chapter 43.43 RCW	Chapter 43.43 RCW
<b>Normal Retirement Eligibility (age/service)</b>	Age 55, Any Age/25, Mandatory at 60	Age 55, Any Age/25, Mandatory at 60
<b>Accrued Benefit Formula</b>	2% x YOS x AFC; Maximum 75% AFC	2% x YOS x AFC; Maximum 75% AFC
<b>Computation of AFS</b>	Average monthly salary of the highest two consecutive years	Average monthly salary of the highest 60 consecutive months
<b>Credited Service</b>	Monthly, based on hours worked each month	Monthly, based on hours worked each month
<b>Vesting</b>	5 years	5 years
<b>Vested Benefits Upon Termination</b>	Refund of employee contributions plus interest, or deferred retirement allowance	Refund of employee contributions plus interest, or deferred retirement allowance
<b>Early Retirement Eligibility (age/service)</b>	n/a	n/a
<b>Early Retirement Reduction Factors</b>	n/a	n/a
<b>Disability Retirement Benefit</b>	50% comp with offsets, paid from WSP operational funds	50% comp with offsets, paid from WSP operational funds
<b>COLA</b>	Lesser of CPI* or 3%	Lesser of CPI* or 3%
<b>Minimum Benefit per Month/YOS**</b>	\$23.74 on 1/1/04	\$23.74 on 1/1/04
<b>Gain-Sharing Benefit Provisions</b>	n/a	n/a
<b>Changes in Plan Provisions Since Last Valuation</b>	None	Full line-of-duty death survivor benefit (C 170 L 04)
<b>Benefits not Included in This Valuation</b>	None	None

\*CPI: Urban Wage Earners &amp; Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items

\*\*Amount increases by 3% annually

## Age/Service Distributions

### Age and Service Distribution of Active Members (Number of Actives and Average Salary)

PERS Plan 1: Attained Age		Attained Years of Service										Total				
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over		
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
30-34	\$0	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35-39	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40-44	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
45-49	\$30,718	\$29,818	\$36,135	\$32,378	\$31,453	\$34,192	\$37,023	\$40,761	\$48,131	\$51,682	\$57,232	\$0	\$0	\$45,344	\$27	
50-54	49	88	93	108	115	115	115	115	115	115	115	115	115	\$0	\$47,211	
55-59	\$34,286	\$32,682	\$36,113	\$31,856	\$36,636	\$36,851	\$40,598	\$45,011	\$49,617	\$55,311	\$55,124	\$63,913	\$0	\$49,129	2,355	
60-64	63	89	92	92	79	423	636	893	897	1,932	1,019	166	5	6,386		
65-69	\$38,365	\$36,352	\$34,315	\$36,858	\$35,136	\$40,364	\$41,773	\$45,853	\$50,217	\$52,834	\$55,433	\$57,090	\$55,786	\$49,002	644	
70 & Over	\$0	\$27,739	\$27,315	\$36,796	\$39,868	\$40,017	\$38,632	\$45,342	\$41,415	\$41,384	\$47,133	\$51,977	\$50,942	\$42,724	200	
Total	160	259	259	302	284	1,461	1,955	2,542	2,528	6,950	2,558	426	56	19,740		
	\$34,745	\$33,287	\$34,432	\$34,256	\$35,846	\$38,014	\$40,765	\$44,550	\$48,941	\$52,397	\$54,166	\$55,748	\$49,797	\$47,876		
Average:	Age Service	55.2 21.4	Number of Participants: Vested Not Vested	18,355 1,385	Males Females	8,572 11,168	Early Retirement Eligible: Normal Retirement Eligible:	N/A 7,623								

\*Annual Salary omitted for privacy reasons  
Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

**PERS Plan 2:**  
**Attained Age**

		Attained Years of Service												Total	
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	2,982
Under 25	847	953	639	336	136	71	0	0	0	0	0	0	0	0	\$27,435
25-29	\$27,014	\$25,526	\$27,356	\$30,378	\$32,877	\$34,451	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,939
30-34	\$775	1,463	1,737	1,430	1,043	1,477	14	0	0	0	0	0	0	0	\$35,095
35-39	\$30,840	\$31,856	\$34,385	\$35,820	\$37,447	\$38,938	\$42,340	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,934
40-44	\$31,617	\$33,469	\$37,498	\$38,223	\$39,776	\$43,293	\$44,605	\$45,795	\$0	\$0	\$0	\$0	\$0	\$0	\$39,781
45-49	605	1,130	1,389	1,374	1,234	4,419	3,128	812	24	0	0	0	0	0	14,115
50-54	\$33,192	\$35,623	\$37,133	\$40,006	\$41,719	\$44,614	\$48,003	\$46,586	\$42,877	\$0	\$0	\$0	\$0	\$0	\$42,828
55-59	570	1,148	1,437	1,379	1,267	4,616	4,142	2,649	985	52	0	0	0	0	18,245
60-64	\$32,183	\$35,755	\$37,411	\$38,819	\$40,660	\$44,533	\$49,325	\$51,566	\$49,442	\$47,294	\$0	\$0	\$0	\$0	\$44,715
65-69	530	1,041	1,295	1,364	1,235	4,830	4,631	3,550	2,428	495	0	0	0	0	21,399
70 & Over	\$33,434	\$35,697	\$38,845	\$40,043	\$41,709	\$44,328	\$49,019	\$52,402	\$54,542	\$54,211	\$0	\$0	\$0	\$0	\$46,625
Total	<b>4,782</b>	<b>8,598</b>	<b>9,982</b>	<b>9,470</b>	<b>8,254</b>	<b>27,535</b>	<b>22,419</b>	<b>14,873</b>	<b>9,274</b>	<b>2,069</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>117,262</b>
Average:	Age 44.6	Number of Participants:		Vested	72,343	Males 56,468	Early Retirement Eligible:		3,889						
	Service 9.0	Not Vested		44,919	Females 60,794	Normal Retirement Eligible:		1,563							

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

PERS Plan 3:		Attained Years of Service										Total			
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
Attained Age	Under 25	477	329	33	12	9	2	0	0	0	0	0	0	0	862
	\$26,203	\$27,280	\$30,772	\$34,257	\$29,780	\$22,762	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,931
25-29	432	556	138	116	95	162	3	0	0	0	0	0	0	0	1,502
30-34	296	461	128	124	150	637	208	2	0	0	0	0	0	0	2,006
35-39	\$31,174	\$34,465	\$40,323	\$41,565	\$41,703	\$45,874	\$45,317	\$69,876	\$0	\$0	\$0	\$0	\$0	\$0	\$40,117
40-44	235	272	121	106	109	566	894	568	178	9	0	0	0	0	3,058
45-49	\$32,458	\$35,701	\$40,611	\$44,014	\$42,665	\$47,683	\$52,613	\$54,561	\$55,193	\$55,919	\$0	\$0	\$0	\$0	\$48,041
50-54	\$31,928	\$36,701	\$39,743	\$44,941	\$42,001	\$46,833	\$51,785	\$54,582	\$57,363	\$54,271	\$0	\$0	\$0	\$0	\$48,985
55-59	\$34,707	\$38,971	\$45,866	\$41,991	\$45,439	\$45,259	\$50,432	\$53,970	\$56,772	\$61,052	\$0	\$0	\$0	\$0	\$49,289
60-64	\$37,329	\$38,805	\$42,072	\$44,659	\$41,363	\$44,976	\$48,706	\$51,085	\$59,615	\$58,988	*	\$0	\$0	\$0	1,409
65-69	\$35,229	\$35,045	\$43,111	\$39,505	\$33,483	\$43,068	\$45,223	\$46,644	\$59,965	\$66,295	\$0	\$0	\$0	\$0	\$46,340
70 & Over	\$29,120	\$30,111	*	\$35,936	\$32,517	\$55,695	\$50,094	\$44,538	\$44,348	\$0	\$0	\$0	\$0	\$0	468
	\$30,491	*	*	\$0	\$19,131	\$27,497	*	\$0	\$39,762	\$0	\$0	\$0	\$0	\$0	\$33,275
<b>Total</b>	<b>2,126</b>	<b>2,559</b>	<b>708</b>	<b>701</b>	<b>664</b>	<b>3,244</b>	<b>3,749</b>	<b>2,306</b>	<b>1,251</b>	<b>239</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17,548</b>
Average:	Age	42.2	Number of Participants:	Vested	9,771	Males	8,396	Early Retirement Eligible: 1,237		Normal Retirement Eligible: 25					
	Service	8.5	Not Vested	7,777	Females	9,152							\$44,823		

\*Annual Salary omitted for privacy reasons  
Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

**TRS Plan 1:**  
**Attained Age**

	Attained Age	Attained Years of Service									Total			
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30-34	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35-39	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40-44	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
45-49	3	4	2	1	4	16	19	50	93	290	0	0	0	482
50-54	\$38,000	\$45,884	\$50,594	*	\$36,075	\$50,538	\$55,132	\$56,287	\$60,988	\$65,413	\$0	\$0	\$0	\$62,032
55-59	13	17	29	21	14	138	285	418	627	2,451	554	1	0	4,568
60-64	\$36,165	\$48,104	\$46,421	\$45,323	\$53,413	\$49,937	\$54,345	\$59,462	\$61,370	\$65,244	\$66,433	*	\$0	\$62,791
65-69	\$40,609	\$46,829	\$44,424	\$50,376	\$47,222	\$49,703	\$55,736	\$58,920	\$62,035	\$64,012	\$65,146	\$65,031	\$0	\$61,737
70 & Over	0	0	0	1	0	0	0	1	6	6	2	2	5	30
<b>Total</b>	<b>31</b>	<b>49</b>	<b>61</b>	<b>55</b>	<b>57</b>	<b>382</b>	<b>803</b>	<b>1,372</b>	<b>1,677</b>	<b>4,440</b>	<b>1,824</b>	<b>376</b>	<b>48</b>	<b>11,175</b>
	<b>\$38,156</b>	<b>\$47,015</b>	<b>\$45,804</b>	<b>\$47,430</b>	<b>\$47,752</b>	<b>\$50,330</b>	<b>\$55,240</b>	<b>\$58,711</b>	<b>\$61,385</b>	<b>\$64,667</b>	<b>\$65,483</b>	<b>\$63,946</b>	<b>\$63,342</b>	<b>\$61,954</b>
Average:	Age	55.4	Number of Participants:	Vested	10,898	Males	3,350	Early Retirement Eligible:			N/A			
	Service	23.9		Not Vested	277	Females	7,825	Normal Retirement Eligible:			4,668			

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

**TRS Plan 2:**  
**Attained Age**

	Under 25	Attained Years of Service										Total		
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over
25-29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30-34	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35-39	\$38,000	\$40,359	\$41,863	\$42,104	\$46,315	\$46,266	\$47,636	\$50	\$50	\$50	\$50	\$50	\$50	\$46,130
40-44	\$37,779	\$41,090	\$41,776	\$42,755	\$42,681	\$47,788	\$52,492	\$58,246	\$50	\$50	\$50	\$50	\$50	\$49,268
45-49	\$41,542	\$41,048	\$42,953	\$41,789	\$44,339	\$47,922	\$53,814	\$58,678	\$62,615	\$50	\$50	\$50	\$50	\$51,560
50-54	\$42,250	\$48,703	\$43,082	\$44,041	\$50,257	\$50,182	\$55,172	\$59,972	\$61,095	\$61,531	\$50	\$50	\$50	\$55,281
55-59	\$52,637	\$52,640	\$54,443	\$51,138	\$48,666	\$52,131	\$56,740	\$59,547	\$64,076	\$65,158	\$50	\$50	\$50	\$57,553
60-64	\$44,417	\$47,961	\$53,104	\$53,349	\$55,380	\$56,778	\$58,635	\$60,744	\$62,913	\$61,742	\$50	\$50	\$50	\$59,718
65-69	*	1	1	1	0	15	43	24	23	7	0	0	0	116
70 & Over	0	0	0	0	1	1	2	3	1	0	0	0	0	8
	\$0	\$0	\$0	\$0	*	*	*	*	*	\$0	\$0	\$0	\$0	\$55,138
<b>Total</b>	<b>79</b>	<b>124</b>	<b>141</b>	<b>153</b>	<b>159</b>	<b>1,988</b>	<b>2,702</b>	<b>1,341</b>	<b>798</b>	<b>152</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7,637</b>
Average:	Age	49.3	Number of Participants:	Vested	6,936	Males	1,990	Early Retirement Eligible:				404		
	Service	12.1	Not Vested	701	Females	5,647	Normal Retirement Eligible:				119			

\*Annual Salary omitted for privacy reasons  
Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

**TRS Plan 3:**  
**Attained Age**

	Attained Years of Service										Total			
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 25	520	323	87	3	0	0	0	0	0	0	0	0	0	933
25-29	\$37,937	\$33,260	\$32,710	\$32,846	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,814
30-34	954	1,206	1,528	1,306	851	544	0	0	0	0	0	0	0	6,389
35-39	\$38,326	\$35,347	\$35,695	\$37,124	\$39,078	\$41,329	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,244
40-44	516	626	852	778	927	3,474	354	0	0	0	0	0	0	7,527
45-49	\$38,472	\$37,619	\$38,492	\$39,724	\$40,749	\$45,068	\$51,199	\$0	\$0	\$0	\$0	\$0	\$0	\$42,456
50-54	297	358	481	407	419	1,988	2,222	231	0	0	0	0	0	6,403
55-59	\$38,158	\$37,931	\$39,040	\$41,070	\$42,803	\$47,149	\$54,038	\$59,990	\$0	\$0	\$0	\$0	\$0	\$47,790
60-64	282	366	424	341	381	1,355	1,803	1,625	256	0	0	0	0	6,833
65-69	\$38,682	\$37,659	\$39,546	\$41,353	\$42,561	\$48,408	\$55,507	\$61,324	\$64,022	\$0	\$0	\$0	\$0	\$51,733
70 & Over	0	0	1	1	1	5	1	1	1	0	0	0	0	11
	\$0	\$0	*	*	*	\$49,929	*	*	*	\$0	\$0	\$0	\$0	\$54,226
<b>Total</b>	<b>3,156</b>	<b>3,655</b>	<b>4,269</b>	<b>3,722</b>	<b>3,466</b>	<b>10,818</b>	<b>8,777</b>	<b>5,266</b>	<b>3,534</b>	<b>600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>47,263</b>
	<b>\$38,512</b>	<b>\$37,406</b>	<b>\$38,545</b>	<b>\$40,269</b>	<b>\$41,892</b>	<b>\$47,269</b>	<b>\$55,829</b>	<b>\$61,472</b>	<b>\$63,997</b>	<b>\$64,964</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$48,836</b>
Average:	Age	41.1	Number of Participants:		Vested	18,646	Males	13,928	Early Retirement Eligible:			2,916		
	Service	8.4	Not Vested		28,617	Females	33,335	Normal Retirement Eligible:			43			

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

SERS Plan 2: Attained Age		Attained Years of Service										Total			
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
Under 25	7	10	16	36	38	11	0	0	0	0	0	0	0	0	118
\$18,571	\$16,233	\$23,409	\$24,952	\$22,213	\$25,771	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,820
25-29	19	36	39	123	138	183	3	0	0	0	0	0	0	0	541
\$17,368	\$17,451	\$19,090	\$20,782	\$23,390	\$24,196	\$14,580	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,104
30-34	14	49	52	157	195	395	94	2	0	0	0	0	0	0	958
\$18,571	\$16,964	\$19,829	\$22,065	\$24,080	\$25,730	\$25,447	\$36,969	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,916
35-39	43	58	121	246	350	638	239	50	6	0	0	0	0	0	1,751
\$19,097	\$18,994	\$16,824	\$18,980	\$20,985	\$23,193	\$27,867	\$32,375	\$31,424	\$0	\$0	\$0	\$0	\$0	\$0	\$22,408
40-44	35	103	181	435	622	1,500	541	162	53	3	0	0	0	0	3,635
\$18,857	\$16,193	\$16,780	\$17,874	\$20,391	\$21,534	\$25,482	\$30,514	\$37,292	\$39,150	\$0	\$0	\$0	\$0	\$0	\$21,719
45-49	42	108	189	414	624	1,956	1,150	299	108	29	0	0	0	0	4,919
\$19,048	\$16,476	\$17,073	\$17,870	\$19,632	\$21,220	\$23,465	\$29,658	\$36,781	\$43,629	\$0	\$0	\$0	\$0	\$0	\$21,966
50-54	25	76	106	274	405	1,355	1,192	483	207	38	0	0	0	0	4,161
\$19,282	\$16,973	\$16,325	\$18,907	\$21,119	\$21,599	\$22,840	\$28,439	\$34,680	\$37,160	\$0	\$0	\$0	\$0	\$0	\$23,085
55-59	21	21	55	137	198	784	817	576	349	47	0	0	0	0	3,005
\$20,000	\$16,071	\$18,229	\$20,451	\$21,897	\$23,485	\$24,252	\$27,247	\$31,597	\$39,460	\$0	\$0	\$0	\$0	\$0	\$25,191
60-64	5	11	28	50	107	407	432	359	286	42	0	0	0	0	1,727
\$20,000	\$15,540	\$15,175	\$20,875	\$21,313	\$22,828	\$23,997	\$27,045	\$28,855	\$35,283	\$0	\$0	\$0	\$0	\$0	\$24,969
65-69	2	2	9	29	36	137	127	90	79	10	0	0	0	0	521
\$20,000	\$10,000	\$13,168	\$15,301	\$17,126	\$22,069	\$22,051	\$28,974	\$25,846	\$30,060	\$0	\$0	\$0	\$0	\$0	\$23,057
70 & Over	1	2	7	5	11	48	58	19	12	5	0	0	0	0	168
*	\$10,000	\$12,735	\$11,223	\$16,547	\$16,412	\$18,895	\$25,106	\$23,287	\$38,525	\$0	\$0	\$0	\$0	\$0	\$19,048
<b>Total</b>	<b>214</b>	<b>476</b>	<b>803</b>	<b>1,906</b>	<b>2,724</b>	<b>7,414</b>	<b>4,653</b>	<b>2,040</b>	<b>1,100</b>	<b>174</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21,504</b>
	<b>\$18,987</b>	<b>\$16,826</b>	<b>\$17,205</b>	<b>\$19,038</b>	<b>\$20,930</b>	<b>\$22,155</b>	<b>\$23,892</b>	<b>\$28,298</b>	<b>\$31,743</b>	<b>\$38,072</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$22,967</b>

Average:      Age      Service      Number of Participants:      Vested      Not Vested      Males      Females

Early Retirement Eligible:      724  
Normal Retirement Eligible:      585

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

**SERS Plan 3:**  
Attained Age

	Attained Years of Service										Total			
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 25	273	245	145	57	5	2	0	0	0	0	0	0	0	727
25-29	\$19,489	\$16,771	\$17,350	\$22,457	\$30,790	\$45,013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,527
30-34	\$19,756	\$19,580	\$22,578	\$23,618	\$26,905	\$28,849	\$36,260	\$0	\$0	\$0	\$0	\$0	\$0	\$1,137
35-39	\$19,579	\$18,463	\$21,778	\$24,166	\$26,910	\$29,788	\$29,472	\$39,657	\$0	\$0	\$0	\$0	\$0	\$21,821
40-44	\$19,429	\$17,377	\$19,573	\$21,203	\$22,214	\$25,502	\$31,550	\$34,406	*	\$0	\$0	\$0	\$0	\$21,816
45-49	\$21	790	780	512	254	1,052	695	228	95	5	0	0	0	4,932
50-54	\$18,827	\$16,470	\$18,359	\$20,030	\$21,830	\$22,548	\$29,244	\$37,619	\$40,272	\$41,587	\$0	\$0	\$0	\$22,221
55-59	\$19,400	\$16,997	\$20,153	\$19,649	\$21,979	\$21,999	\$24,710	\$33,125	\$37,913	\$40,267	\$0	\$0	\$0	\$23,131
60-64	\$19,519	\$19,677	\$22,750	\$22,292	\$18,653	\$23,177	\$24,319	\$26,648	\$30,064	\$37,770	\$0	\$0	\$0	\$24,925
65-69	\$19,142	\$17,118	\$19,423	\$20,525	\$21,269	\$22,404	\$23,195	\$26,382	\$28,597	\$30,888	\$0	\$0	\$0	\$23,598
70 & Over	\$15,000	\$14,959	\$12,942	\$19,772	\$0	\$19,478	\$19,118	\$21,304	*	*	\$0	\$0	\$0	60
<b>Total</b>	<b>2,722</b>	<b>3,750</b>	<b>3,572</b>	<b>2,260</b>	<b>967</b>	<b>4,837</b>	<b>5,415</b>	<b>2,761</b>	<b>1,247</b>	<b>179</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27,710</b>
	<b>\$19,338</b>	<b>\$17,553</b>	<b>\$20,057</b>	<b>\$21,123</b>	<b>\$22,407</b>	<b>\$23,277</b>	<b>\$25,326</b>	<b>\$29,604</b>	<b>\$32,950</b>	<b>\$37,201</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$23,051</b>
Average:	Age	45.8	Number of Participants:	Vested	11,492	Males	5,729	Early Retirement Eligible:	0	0	0	0	0	3,036
	Service	7.1		Not Vested	16,218	Females	21,981	Normal Retirement Eligible:	103					

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

		Attained Years of Service																											
		0		1		2		3		4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40 & Over		Total	
Attained Age		Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-29	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
30-34	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
35-39	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
40-44	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
45-49	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
50-54	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
55-59	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
60-64	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
65-69	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
70 & Over	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
<b>Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>			
Average:	Age	54.0	Number of Participants:		Vested	991	Males		978	Females		13	Early Retirement Eligible:		N/A	Normal Retirement Eligible:		871											
Service		29.3	Not Vested		0																								

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

**LEOFF Plan 2:**  
**Attained Age**

	Attained Years of Service													Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 25	32	76	44	21	5	0	0	0	0	0	0	0	0	0
25-29	\$40,643	\$44,465	\$49,080	\$52,994	\$46,465	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$45,981
30-34	\$41,692	\$45,069	\$51,189	\$54,716	\$60,267	\$62,307	*	\$0	\$0	\$0	\$0	\$0	\$0	\$53,566
35-39	\$44,104	\$47,355	\$51,006	\$56,298	\$59,828	\$64,302	\$69,440	*	\$0	\$0	\$0	\$0	\$0	\$60,511
40-44	\$46,936	\$52,112	\$51,868	\$58,644	\$60,941	\$65,747	\$69,853	\$74,261	*	\$0	\$0	\$0	\$0	\$66,262
45-49	\$49,171	\$54,079	\$52,266	\$56,916	\$58,011	\$64,240	\$70,794	\$74,414	\$79,162	\$81,229	\$0	\$0	\$0	\$70,074
50-54	\$53,153	\$63,679	\$52,427	\$61,801	\$56,289	\$64,503	\$69,557	\$73,851	\$79,574	\$78,567	\$0	\$0	\$0	\$73,622
55-59	\$54,063	\$74,806	\$63,250	\$61,213	\$57,925	\$63,453	\$69,046	\$72,629	\$76,469	\$78,069	\$0	\$0	\$0	\$73,245
60-64	\$48,795	\$55,524	\$79,143	\$67,824	\$64,472	\$66,319	\$67,388	\$70,739	\$73,976	\$74,406	\$0	\$0	\$0	\$70,938
65-69	\$0	0	4	2	0	0	15	16	22	22	3	0	0	84
70 & Over	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>401</b>	<b>721</b>	<b>837</b>	<b>739</b>	<b>824</b>	<b>3,578</b>	<b>3,097</b>	<b>2,140</b>	<b>1,840</b>	<b>383</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14,560</b>
Average:	Age	39.5	Number of Participants:		Vested	10,557	Males	13,360	Early Retirement Eligible:			\$0		
	Service	10.7	Not Vested		4,003	Females	1,200	Normal Retirement Eligible:			\$0			540

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

WSP Plan 1: Attained Age		Attained Years of Service										Total	
		Under 25	25-29	30-34	35-39	40 & Over	5-9	10-14	15-19	20-24	25-29		
\$0	0	0	0	0	0	0	0	0	0	0	0	0	4
\$0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$44,725
\$0	0	1	17	23	29	35	0	0	0	0	0	0	105
\$0	*	\$47,363	\$48,554	\$50,827	\$55,603	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$51,281
\$0	0	3	17	10	26	137	31	0	0	0	0	0	224
\$0	\$45,035	\$45,416	\$49,015	\$51,523	\$59,437	\$63,744	\$0	\$0	\$0	\$0	\$0	\$0	\$57,392
\$0	0	0	4	3	17	74	127	37	0	0	0	0	262
\$0	\$0	\$0	\$48,232	\$47,529	\$50,930	\$59,904	\$65,204	\$64,790	\$0	\$0	\$0	\$0	\$62,261
\$0	0	0	4	0	7	23	45	122	6	0	0	0	207
\$0	\$0	\$62,421	\$0	\$50,241	\$56,855	\$63,670	\$67,739	\$75,608	\$0	\$0	\$0	\$0	\$65,179
\$0	0	0	2	1	9	4	10	38	64	17	0	0	145
\$0	\$0	\$44,785	*	\$52,252	\$60,140	\$62,950	\$65,350	\$72,755	\$73,327	\$0	\$0	\$0	\$68,062
\$0	0	0	0	0	2	4	4	8	17	19	11	0	65
\$0	\$0	\$0	\$0	\$55,690	\$61,643	\$58,106	\$65,662	\$67,360	\$72,464	\$71,053	\$0	\$0	\$67,988
\$0	0	0	0	0	1	4	1	3	3	3	15	2	32
\$0	\$0	\$0	\$0	*	\$59,857	*	\$59,106	\$68,577	\$70,127	\$66,035	\$63,337	\$0	\$64,370
\$0	0	0	0	0	0	0	0	0	1	0	0	0	1
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	\$0	\$0	\$0	*
\$0	0	0	0	0	0	0	0	0	0	0	0	0	0
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>4</b>	<b>46</b>	<b>39</b>	<b>91</b>	<b>281</b>	<b>218</b>	<b>208</b>	<b>90</b>	<b>40</b>	<b>26</b>	<b>2</b>	<b>0</b>
													<b>1,045</b>
Average:	Age	38.8	Number of Participants:	Vested	825	Males	964	Early Retirement Eligible:	N/A				
	Service	12.2	Not Vested	220	Females	81	Normal Retirement Eligible:	80					

\*Annual Salary omitted for privacy reasons

Numbers of participants eligible for early and normal retirement are estimates only.

**Age and Service Distribution of Active Members  
(Number of Actives and Average Salary)**

(Continued)

		Attained Years of Service																		
		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40 & Over		Total		
Attained Age	WSP Plan 2:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Under 25	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
25-29	\$42,000	*	*	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,474	
30-34	\$45,082	\$39,338	\$39,443	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	14	
35-39	\$43,170	\$39,514	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,031	
40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60-64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
65-69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
70 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>\$43,612</b>	<b>\$39,661</b>	<b>\$39,521</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>34</b>	
Average:	Age	28.8	Number of Participants:		Vested	0	Males		32	Early Retirement Eligible:		N/A								
	Service	0.8	Not Vested		34	Females	2	Normal Retirement Eligible:		0	\$41,018								0	

\*Annual Salary omitted for privacy reasons  
Numbers of participants eligible for early and normal retirement are estimates only.

## **Age and Years Retired Distribution of All Annuitant Members (Number of All Annuitant Members and Average Monthly Benefit)**

PERS Plan 1:		Attained Age										Attained Years Retired										Total
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over								
Under 50		28	19	6	11	18	53	18	8	9	7	2	0	0	0	179	\$1,143	\$1,143	\$1,143	\$1,143	\$1,143	
50-54	\$2,592	\$1,997	\$1,099	\$616	\$813	\$953	\$513	\$274	\$271	\$195	\$152	\$0	\$0	\$0	\$0	\$0	\$1,086	\$1,086	\$1,086	\$1,086	\$1,086	
55-59	\$2,694	\$2,891	\$2,542	\$2,377	\$2,178	\$1,155	\$913	\$490	\$277	\$182	*	*	\$0	\$0	\$0	\$0	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	
60-64	\$2,740	\$2,628	\$2,546	\$2,602	\$2,470	\$2,223	\$1,577	\$462	\$298	\$250	\$273	*	*	\$0	\$0	\$0	\$2,406	\$2,406	\$2,406	\$2,406	\$2,406	
65-69	\$1,865	\$1,854	\$1,854	\$1,804	\$1,833	\$2,096	\$1,752	\$766	\$424	\$327	\$320	\$0	\$0	\$185	\$185	\$185	\$1,862	\$1,862	\$1,862	\$1,862	\$1,862	
70-74	\$1,501	\$1,635	\$1,495	\$1,497	\$1,485	\$1,404	\$1,483	\$1,425	\$847	\$306	\$237	\$189	*	*	*	\$1,435	\$1,435	\$1,435	\$1,435	\$1,435		
75-79	\$1,505	\$1,649	\$1,880	\$1,583	\$1,623	\$1,308	\$1,128	\$1,409	\$1,118	\$519	\$315	\$310	\$361	\$361	\$361	\$361	\$1,223	\$1,223	\$1,223	\$1,223	\$1,223	
80-84	\$1,028	\$1,779	\$1,238	\$1,628	\$1,570	\$1,415	\$1,054	\$866	\$938	\$782	\$387	\$301	\$377	\$377	\$377	\$377	\$8,378	\$8,378	\$8,378	\$8,378	\$8,378	
85-89	\$2,917	\$2,034	\$1,126	\$1,468	\$948	\$1,312	\$1,089	\$824	\$677	\$824	\$555	\$382	\$222	\$222	\$222	\$222	\$766	\$766	\$766	\$766	\$766	
90-94	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$618	\$618	\$618	\$618	\$618	
95 & Over	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$580	\$580	\$580	\$580	\$580	
Total	1,123	2,390	2,208	2,324	2,298	9,467	10,933	7,800	9,312	4,504	1,719	242	52	52	52	52	54,372	54,372	54,372	54,372	54,372	
Average:	Age	73.1	Years Retired	13.6													Males	23,238				
																Females	31,134					

*\*Monthly benefit committed for privacy reasons*

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

**PERS Plan 2:**  
**Attained Age**

	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 50	9	24	15	9	7	11	4	0	0	0	0	0	0	79
\$143	\$214	\$158	\$180	\$223	\$120	\$118	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$174
50-54	10	28	30	25	29	34	3	0	0	0	0	0	0	159
\$310	\$255	\$229	\$181	\$177	\$226	\$356	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$223
55-59	40	77	50	47	56	83	8	0	0	0	0	0	0	361
\$544	\$485	\$399	\$354	\$224	\$199	\$194	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$350
60-64	99	144	120	112	91	168	29	1	0	0	0	0	0	764
\$949	\$827	\$619	\$530	\$456	\$289	\$193	*	\$0	\$0	\$0	\$0	\$0	\$0	\$579
65-69	461	859	790	814	682	288	49	7	0	0	0	0	0	3,950
\$832	\$808	\$769	\$726	\$694	\$523	\$253	\$112	\$0	\$0	\$0	\$0	\$0	\$0	\$737
70-74	26	77	59	153	286	2,550	120	16	0	0	0	0	0	3,287
\$883	\$827	\$789	\$768	\$712	\$620	\$342	\$193	\$0	\$0	\$0	\$0	\$0	\$0	\$632
75-79	8	24	18	26	44	443	1,022	33	2	0	0	0	0	1,620
\$355	\$629	\$531	\$544	\$549	\$607	\$492	\$287	\$187	\$0	\$0	\$0	\$0	\$0	\$523
80-84	2	2	4	6	11	85	175	287	3	0	0	0	0	575
\$521	\$591	\$919	\$789	\$713	\$466	\$470	\$353	\$133	\$0	\$0	\$0	\$0	\$0	\$421
85-89	0	1	1	4	6	10	21	51	8	0	0	0	0	102
\$0	*	*	\$168	\$218	\$476	\$412	\$348	\$442	\$0	\$0	\$0	\$0	\$0	\$369
90-94	0	0	0	0	0	1	4	2	0	0	0	0	0	7
\$0	\$0	\$0	\$0	\$0	*	\$279	\$317	\$0	\$0	\$0	\$0	\$0	\$0	\$356
95 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>655</b>	<b>1,236</b>	<b>1,087</b>	<b>1,196</b>	<b>1,212</b>	<b>3,673</b>	<b>1,435</b>	<b>397</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10,904</b>
	<b>\$810</b>	<b>\$763</b>	<b>\$709</b>	<b>\$677</b>	<b>\$636</b>	<b>\$577</b>	<b>\$458</b>	<b>\$336</b>	<b>\$331</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$618</b>
Average:		Age	69.9											
		Years Retired	5.5											
											Males	4,846		
											Females	6,058		

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

PERS Plan 3:		Attained Years Retired										Total			
		Attained Age	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over
Under 50	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
50-54	*	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$106
55-59	14	13	0	0	0	0	0	0	0	0	0	0	0	0	2
60-64	23	16	0	0	0	0	0	0	0	0	0	0	0	0	39
65-69	9	4	0	0	0	0	0	0	0	0	0	0	0	0	13
70-74	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
75-79	0	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$685
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90-94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>49</b>	<b>37</b>	<b>0</b>	<b>86</b>											
Average:	Years Retired	Age	60.8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$406

*\*Monthly benefit omitted for privacy reasons*

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

**TRS Plan 1:**

**Attained Age**

	Under 50	Attained Years Retired										Total			
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
<b>50-54</b>	244	* 1,549	\$1,810	\$1,460	\$1,216	\$1,064	\$877	\$542	\$790	*	\$0	\$0	\$0	\$0	\$1,105
<b>55-59</b>	\$2,772	\$2,647	\$2,365	\$2,079	\$1,498	\$1,254	\$1,079	\$475	\$480	*	\$724	\$0	\$0	\$0	\$596
<b>60-64</b>	538	807	956	764	630	593	154	23	14	5	3	2	0	0	\$2,435
<b>65-69</b>	\$2,606	\$2,431	\$2,302	\$2,161	\$2,114	\$2,031	\$1,493	\$552	\$407	\$413	\$722	\$599	\$0	\$0	\$2,229
<b>70-74</b>	350	543	658	649	651	2,296	866	41	22	11	5	1	1	1	\$6,094
<b>75-79</b>	\$1,943	\$1,804	\$1,713	\$1,726	\$1,731	\$1,952	\$1,733	\$885	\$496	\$295	\$453	*	*	*	\$1,816
<b>80-84</b>	\$2,255	\$1,584	\$0	\$1,696	\$1,908	\$1,754	\$1,447	\$1,485	\$1,181	\$611	\$433	*	*	\$0	\$1,479
<b>85-89</b>	0	5	1,817	2	7	126	936	1,673	1,512	143	16	0	0	0	6,237
<b>90-94</b>	\$0	\$2,247	\$6	\$1,600	\$1,539	\$1,733	\$1,442	\$1,101	\$1,218	\$841	\$499	\$0	\$0	\$0	\$868
<b>95 &amp; Over</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$1,295	\$1,667	\$1,081	\$1,007	\$834	\$904	\$639	\$0	3,289
<b>Total</b>	<b>1,204</b>	<b>1,638</b>	<b>1,877</b>	<b>1,723</b>	<b>1,638</b>	<b>6,453</b>	<b>6,739</b>	<b>3,928</b>	<b>4,776</b>	<b>2,570</b>	<b>1,105</b>	<b>178</b>	<b>26</b>	<b>33,855</b>	
	<b>\$2,407</b>	<b>\$2,216</b>	<b>\$2,038</b>	<b>\$1,921</b>	<b>\$1,867</b>	<b>\$1,763</b>	<b>\$1,564</b>	<b>\$1,239</b>	<b>\$1,074</b>	<b>\$902</b>	<b>\$866</b>	<b>\$663</b>	<b>\$639</b>	<b>\$1,539</b>	
Average:		Age	70.6								Males	14,870			
		Years Retired	12.6								Females	18,985			

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

**TRS Plan 2:**  
Attained Age

	Attained Age	Attained Years Retired										Total	
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	
Under 50	1	4	0	1	2	3	3	0	0	0	0	0	0
50-54	*	\$321	\$0	*	\$494	\$200	\$0	\$0	\$0	\$0	\$0	\$0	11
50-54	1	0	1	3	1	3	0	0	0	0	0	\$0	\$272
55-59	*	\$0	*	\$366	*	\$212	\$0	\$0	\$0	\$0	\$0	\$0	9
55-59	10	3	3	4	1	2	1	0	0	0	0	0	\$252
55-59	\$680	\$232	\$504	\$522	*	\$320	*	\$0	\$0	\$0	\$0	\$0	\$506
60-64	19	21	18	15	6	19	3	0	0	0	0	0	101
60-64	\$1,065	\$1,109	\$854	\$666	\$588	\$554	\$481	\$0	\$0	\$0	\$0	\$0	\$836
65-69	60	88	92	97	77	38	5	0	0	0	0	0	457
65-69	\$1,066	\$1,166	\$1,083	\$1,018	\$965	\$962	\$408	\$0	\$0	\$0	\$0	\$0	\$1,045
70-74	4	7	8	7	22	192	8	0	0	0	0	0	248
70-74	\$1,364	\$1,569	\$1,239	\$1,043	\$1,085	\$909	\$496	\$0	\$0	\$0	\$0	\$0	\$952
75-79	2	0	1	3	2	28	48	0	0	0	0	0	84
75-79	\$866	\$0	*	\$611	\$1,301	\$950	\$748	\$0	\$0	\$0	\$0	\$0	\$834
80-84	0	0	0	0	1	4	8	8	0	0	0	0	21
80-84	\$0	\$0	\$0	\$0	*	\$620	\$797	\$511	\$0	\$0	\$0	\$0	\$691
85-89	0	0	0	0	0	1	0	1	0	0	0	0	2
90-94	0	0	0	0	0	0	*	\$0	*	\$0	\$0	\$0	\$349
95 & Over	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
95 & Over	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>97</b>	<b>123</b>	<b>130</b>	<b>112</b>	<b>290</b>	<b>73</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>957</b>
	<b>\$1,014</b>	<b>\$1,129</b>	<b>\$1,040</b>	<b>\$931</b>	<b>\$960</b>	<b>\$872</b>	<b>\$682</b>	<b>\$497</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$941</b>

Average:  
Years Retired      Age      68.4  
                                                4.3

Males      277  
Females      680

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

**TRS Plan 3:**

Attained Age	Attained Years Retired										Total		
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over
Under 50	2	1	2	1	0	0	0	0	0	0	0	0	0
	\$212	*	\$146	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
50-54	0	2	2	3	2	2	0	0	0	0	0	0	11
	\$0	\$181	\$132	\$155	\$138	\$129	\$0	\$0	\$0	\$0	\$0	\$0	\$148
55-59	19	37	19	12	8	5	0	0	0	0	0	0	100
	\$308	\$272	\$279	\$227	\$195	\$154	\$0	\$0	\$0	\$0	\$0	\$0	\$263
60-64	29	29	29	30	20	23	0	0	0	0	0	0	160
	\$597	\$455	\$405	\$381	\$329	\$291	\$0	\$0	\$0	\$0	\$0	\$0	\$419
65-69	15	25	14	18	13	15	0	0	0	0	0	0	100
	\$640	\$575	\$549	\$602	\$550	\$462	\$0	\$0	\$0	\$0	\$0	\$0	\$566
70-74	0	0	0	2	1	2	0	0	0	0	0	0	5
	\$0	\$0	\$0	\$610	*	\$576	\$0	\$0	\$0	\$0	\$0	\$0	\$655
75-79	1	0	0	0	0	0	0	0	0	0	0	0	1
	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*
80-84	0	0	0	0	0	2	0	0	0	0	0	0	2
	\$0	\$0	\$0	\$0	\$0	\$181	\$0	\$0	\$0	\$0	\$0	\$0	\$181
85-89	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
90-94	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>66</b>	<b>94</b>	<b>66</b>	<b>44</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>385</b>
	<b>\$506</b>	<b>\$409</b>	<b>\$383</b>	<b>\$406</b>	<b>\$374</b>	<b>\$330</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$407</b>
Average:	Years Retired	Age	61.7	2.3							Males	96	
											Females	289	

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

SERS Plan 2: Attained Age		Attained Years Retired										Total		
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over
Under 50	2	1	1	0	0	0	0	0	0	0	0	0	0	4
50-54	\$158	*	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$154
55-59	0	3	5	1	0	0	0	0	0	0	0	0	0	9
60-64	\$0	\$204	\$121	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$147
65-69	9	11	12	3	0	0	0	0	0	0	0	0	0	35
70-74	\$340	\$338	\$158	\$97	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$256
75-79	44	39	30	6	0	0	0	0	0	0	0	0	0	119
80-84	\$652	\$641	\$391	\$359	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$568
85-89	112	159	154	41	0	0	0	0	0	0	0	0	0	466
90-94	\$589	\$551	\$536	\$604	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$560
95 & Over	16	24	28	13	0	0	0	0	0	0	0	0	0	81
Total	186	243	238	69	0	0	0	0	0	0	0	0	0	736
	\$558	\$538	\$468	\$511	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$518

Average:

Males

Females

Years Retired

258

478

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

SERS Plan 3:  
Attained Age

	Attained Age	Attained Years Retired										Total				
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over		
Under 50	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
*	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	
50-54	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
*	*	\$0	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$99	\$99	
55-59	10	15	15	1	0	0	0	0	0	0	0	0	0	0	41	
\$147	\$109	\$115	*	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$123	\$123	
60-64	38	41	54	4	0	0	0	0	0	0	0	0	0	0	137	
\$253	\$227	\$206	\$199	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$225	\$225	
65-69	20	37	43	5	0	0	0	0	0	0	0	0	0	0	105	
\$338	\$345	\$229	\$250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$292	\$292	
70-74	3	6	6	2	0	0	0	0	0	0	0	0	0	0	17	
\$223	\$97	\$280	\$121	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$187	\$187	
75-79	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	
\$0	\$287	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$255	\$255
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
90-94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
95 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Total</b>	<b>73</b>	<b>101</b>	<b>120</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>306</b>	
		<b>\$256</b>	<b>\$246</b>	<b>\$206</b>	<b>\$207</b>	<b>\$0</b>	<b>\$231</b>									
Average:		Age	63.5	Years Retired	1.3							Males	99			
												Females	207			

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

**LEOFF Plan 1:**  
**Attained Age**

	Under 50	Attained Years Retired										Total			
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	
* \$2,878	\$3,091	\$3,658	\$2,837	\$2,593	\$2,373	\$2,062	\$1,549	\$1,309	\$1,317	\$0	\$0	\$0	\$0	\$0	\$2,467
26 60	48	76	63	109	109	84	44	14	0	0	0	0	0	0	696
\$3,613	\$3,229	\$2,989	\$2,942	\$2,890	\$2,589	\$2,316	\$2,152	\$1,958	\$0	\$0	\$0	\$0	\$0	\$0	\$2,811
28 73	104	109	148	714	312	201	150	90	12	0	0	0	0	0	1,941
\$3,693	\$3,507	\$3,416	\$3,335	\$2,878	\$2,695	\$2,366	\$2,286	\$2,199	\$2,128	\$0	\$0	\$0	\$0	\$0	\$2,855
8 18	28	38	56	457	563	173	165	111	40	0	0	0	0	0	1,657
\$4,223	\$3,743	\$3,756	\$3,698	\$3,561	\$3,215	\$2,792	\$2,525	\$2,363	\$2,244	\$2,123	\$0	\$0	\$0	\$0	\$2,865
0 2	2	3	6	138	286	310	182	113	49	0	0	0	0	0	1,091
\$0 \$3,976	\$3,468	\$4,398	\$3,839	\$3,463	\$3,119	\$2,595	\$2,491	\$2,480	\$2,224	\$0	\$0	\$0	\$0	\$0	\$2,812
0 0	0	2	2	18	76	218	356	156	89	0	0	0	0	0	917
\$0 \$0	\$0	\$0	\$4,270	\$4,077	\$3,794	\$3,360	\$2,983	\$2,544	\$2,534	\$2,309	\$0	\$0	\$0	\$0	\$2,723
0 0	0	0	0	2	26	74	244	355	139	0	0	0	0	0	840
\$0 \$0	\$0	\$0	\$0	\$6,168	\$3,614	\$3,042	\$2,936	\$2,720	\$2,462	\$0	\$0	\$0	\$0	\$0	\$2,804
0 0	0	0	0	0	0	3	12	70	220	263	0	0	0	0	568
\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$4,149	\$2,695	\$2,898	\$2,813	\$2,443	\$0	\$0	\$0	\$0	\$2,657
0 0	0	0	0	0	0	1	3	13	42	117	0	0	0	0	176
\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$2,163	\$2,557	\$2,454	\$2,401	\$0	\$0	\$0	\$0	\$0	\$2,421
0 0	0	0	0	0	0	0	0	0	2	16	43	0	0	0	61
\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,858	\$2,381	\$2,275	\$0	\$0	\$0	\$0	\$0	\$2,486
0 0	0	0	0	0	0	0	0	1	1	9	0	0	0	0	11
\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	*	\$2,886	\$0	\$0	\$0	\$0	\$2,835
<b>Total</b>	<b>63</b>	<b>159</b>	<b>187</b>	<b>234</b>	<b>285</b>	<b>1,522</b>	<b>1,400</b>	<b>1,087</b>	<b>1,230</b>	<b>1,124</b>	<b>763</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,054</b>
	<b>\$3,708</b>	<b>\$3,529</b>	<b>\$3,461</b>	<b>\$3,349</b>	<b>\$3,291</b>	<b>\$3,045</b>	<b>\$2,863</b>	<b>\$2,622</b>	<b>\$2,571</b>	<b>\$2,567</b>	<b>\$2,381</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,796</b>

Average:      Age      Years Retired

Males      6,777  
Females      1,277

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

**LEOFF Plan 2:**

	Attained Age	Attained Years Retired										Total			
		0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 50	1	6	1	3	0	0	0	0	0	0	0	0	0	0	11
	*	\$925	*	\$398	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$773
50-54	8	24	7	5	0	1	1	0	0	0	0	0	0	0	46
	\$2,388	\$1,547	\$1,736	\$1,571	\$0	*	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,671
55-59	15	25	34	37	7	1	0	0	0	0	0	0	0	0	119
	\$2,098	\$1,684	\$1,623	\$1,393	\$1,008	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,585
60-64	2	16	6	5	12	29	0	0	0	0	0	0	0	0	70
	\$1,013	\$1,380	\$2,090	\$1,294	\$994	\$966	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,187
65-69	1	3	2	7	7	15	11	0	0	0	0	0	0	0	46
	*	\$1,586	\$850	\$1,164	\$1,235	\$871	\$743	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$981
70-74	0	0	0	0	2	8	4	3	1	0	0	0	0	0	18
	\$0	\$0	\$0	\$0	\$1,212	\$1,145	\$1,093	\$555	*	\$0	\$0	\$0	\$0	\$0	\$981
75-79	0	0	0	0	0	0	3	1	0	0	0	0	0	0	4
	\$0	\$0	\$0	\$0	\$0	\$0	\$663	*	\$0	\$0	\$0	\$0	\$0	\$0	\$647
80-84	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	\$0	\$0	\$0	\$0	\$0	\$0	*
85-89	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	\$0	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*
90-94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>27</b>	<b>75</b>	<b>50</b>	<b>57</b>	<b>28</b>	<b>54</b>	<b>19</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>316</b>
	<b>\$2,020</b>	<b>\$1,496</b>	<b>\$1,641</b>	<b>\$1,320</b>	<b>\$1,073</b>	<b>\$963</b>	<b>\$772</b>	<b>\$572</b>	<b>*</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,341</b>
Average: Years Retired		Age	59.8								Males	285			
			3.6								Females	31			

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

WSP Plan 1:		Attained Years Retired											
		Attained Age		5-9		10-14		15-19		20-24		25-29	
Under 50	0	1	2	3	4	5	6	7	8	9	10	0	0
	4	2	1	2	3	2	7	3	1	0	0	0	0
\$3,386	\$1,799	*	\$3,500	\$2,222	\$1,856	\$738	\$847	*	*	\$0	\$0	\$0	\$0
50-54	3	10	8	11	15	25	2	1	1	1	0	0	0
	\$3,693	\$3,664	\$3,901	\$3,524	\$3,514	\$3,031	\$924	*	*	*	\$0	\$0	\$0
55-59	4	14	13	10	19	85	26	6	3	5	1	0	0
	\$3,667	\$3,760	\$4,374	\$3,381	\$3,655	\$3,092	\$2,673	\$419	\$296	\$444	*	\$0	\$0
60-64	1	7	7	9	3	70	79	6	9	2	1	0	0
	*	\$3,355	\$4,065	\$3,747	\$3,630	\$3,433	\$2,811	\$2,157	\$214	\$430	*	\$0	\$0
65-69	0	0	0	0	1	13	54	33	11	4	1	0	0
	\$0	\$0	\$0	\$0	*	\$3,798	\$2,885	\$2,781	\$1,330	\$539	*	\$0	\$0
70-74	0	1	0	0	0	2	6	27	42	4	1	0	0
	\$0	*	\$0	\$0	\$0	\$2,512	\$4,386	\$2,895	\$1,964	\$979	*	\$0	\$0
75-79	0	0	1	0	0	0	0	4	28	6	2	3	0
	\$0	\$0	*	\$0	\$0	\$0	\$0	\$2,317	\$2,358	\$1,234	\$828	\$657	\$0
80-84	0	0	0	0	0	0	0	1	6	13	3	6	2
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	\$1,833	\$1,476	\$738	\$372	\$270
85-89	0	0	0	0	0	0	0	0	0	11	13	4	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,019	\$892	\$644	\$0
90-94	0	0	0	0	0	0	0	0	0	0	5	3	3
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$915	\$607	\$402
95 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	12	34	30	32	41	197	174	81	101	46	27	16	5
	\$3,606	\$3,436	\$4,025	\$3,540	\$3,449	\$3,234	\$2,762	\$2,461	\$1,752	\$1,279	\$788	\$537	\$349
Average:	Years Retired	Age	63.9	12.9									
		Males	683										
		Females	113										

\*Monthly benefit omitted for privacy reasons

**Age and Years Retired Distribution of All Annuitant Members  
(Number of All Annuitant Members and Average Monthly Benefit)**

(Continued)

Attained Age	WSP Plan 2:	Attained Years Retired										Total
		5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	0	0	
Under 50	0	1	2	3	4	0	0	0	0	0	0	\$0
50-54	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
55-59	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-64	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
65-69	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-74	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
75-79	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
80-84	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
85-89	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
90-94	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95 & Over	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>
Average:		Age	0.0	Years Retired	0.0					Males	0	
										Females	0	

\*Monthly benefit omitted for privacy reasons

## Historical Data

(Dollars in millions)	Historical Data						
	2003			2002		2000	
	Plan 1	Plan 2/ <sup>3</sup>	Plan 1	Plan 2/ <sup>3</sup>	Plan 1	Plan 2	Plan 1
<b>PERS Contribution Information</b>							
Employer Rate	5.73%	5.73%	3.78%	3.78%	2.05%	1.63%	3.21%
Employee Rate	6.00%	3.38%	6.00%	2.63%	6.00%	1.41%	6.00%
<b>Funded Status</b>							
Credited Projected Liability	\$12,431	\$7,658	\$11,682	\$6,777	\$11,291	\$6,158	\$5,671
Market Value of Assets	\$8,730	\$9,461	\$8,236	\$8,246	\$9,373	\$9,443	\$10,744
Actuarial Value of Assets	\$10,227	\$10,842	\$10,757	\$10,701	\$10,990	\$11,032	\$11,111
Unfunded Liability	\$2,204	(\$3,184)	\$925	(\$3,924)	\$301	(\$4,874)	\$227
Funded Ratio	82.27%	141.58%	92.08%	157.89%	97.00%	179.00%	98.00%
<b>Participant Data</b>							
Number of Actives	19,740	134,810	21,737	132,448	23,981	128,955	25,833
Total Annual Salaries	\$945	\$5,930	\$1,023	\$5,661	\$1,085	\$5,249	\$1,132
Number of Terminated Vested	3,142	16,859	3,280	15,872	3,310	15,102	3,220
Number of Terminated, Not Vested	6,525	78,853	7,010	77,151	8,019	76,733	7,704
Number of Retirees and Beneficiaries	54,372	10,990	54,006	9,750	53,538	8,651	53,161
Total Annual Benefits	\$816	\$81	\$760	\$68	\$705	\$57	\$663
<b>Assumptions</b>							
Valuation Interest Rate	8.00%	8.00%	8.00%	8.00%	5.90%	5.90%	7.50%
Salary Increase	4.80%	6.20%	4.80%	6.30%	3.60%	4.70%	4.00%
Inflation <sup>3</sup>	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Growth in Membership	1.25%	1.25%	1.25%	0.94%	0.94%	1.25%	1.25%
<b>Actuarial Experience</b>							
Return on Market Value	14.97%	15.05%	(5.83%)	(6.20%)	(9.68%)	(9.80%)	0.49%
Return on Actuarial Value	1.50%	1.50%	1.60%	1.90%	2.10%	1.90%	10.20%
Salary Increase	2.80%	4.20%	5.10%	6.40%	3.90%	4.90%	4.90%
Inflation	1.81%	1.81%	3.55%	3.55%	3.75%	3.75%	3.10%
Growth in Membership	0.24%	0.24%	0.82%	0.82%	0.44%	0.44%	1.84%
COLA <sup>4</sup>	\$1.18	3.00%	\$1.14	3.00%	\$1.11	3.00%	\$1.08

Note: See footnotes at the end of this section

**Historical Data**

(Continued)

TRS	(Dollars in millions)	Historical Data							
		2003	2002	Plan 1	Plan 2/3 <sup>2</sup>	Plan 1	Plan 2/3 <sup>2</sup>	2001 <sup>1</sup>	2000
<b>Contribution Information</b>									
Employer Rate	6.74%	6.74%	3.19%	3.19%	2.22%	2.22%	2.38%	2.38%	5.38%
Employee Rate	6.00%	2.48%	6.00%	1.71%	6.00%	1.20%	6.00%	1.29%	6.00%
<b>Funded Status</b>									
Credited Projected Liability	\$10,207	\$2,552	\$9,602	\$2,085	\$9,320	\$1,797	\$9,376	\$1,654	\$9,359
Market Value of Assets	\$7,358	\$3,315	\$6,962	\$2,877	\$7,985	\$3,045	\$9,805	\$3,397	\$9,002
Actuarial Value of Assets	\$9,086	\$3,949	\$9,366	\$3,800	\$9,342	\$3,547	\$9,372	\$3,250	\$8,696
Unfunded Liability	\$1,121	(\$1,397)	\$236	(\$1,715)	(\$22)	(\$1,750)	\$4	(\$1,596)	\$663
Funded Ratio	89.02%	154.74%	97.54%	182.25%	100.00%	197.00%	100.00%	196.00%	93.00%
<b>Participant Data</b>									
Number of Actives	11,175	54,900	12,456	53,607	13,971	52,249	17,222	46,636	18,737
Total Annual Salaries	\$692	\$2,723	\$741	\$2,523	\$800	\$2,350	\$957	\$2,043	\$984
Number of Terminated Vested	1,647	4,911	1,819	4,638	1,990	4,072	1,976	3,441	2,071
Number of Terminated, Not Vested	776	4,169	814	4,378	949	5,041	965	5,404	989
Number of Retirees and Beneficiaries	33,855	1,342	33,148	1,106	32,195	912	29,839	611	28,920
Total Annual Benefits	\$625	\$13	\$587	\$10	\$544	\$8	\$463	\$5	\$428
<b>Assumptions</b>									
Valuation Interest Rate	8.00%	8.00%	8.00%	8.00%	10.10%	10.10%	7.50%	7.50%	7.50%
Salary Increase	4.80%	6.70%	4.80%	6.70%	6.00%	8.60%	4.00%	4.00%	4.00%
Inflation <sup>3</sup>	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Growth in Membership	0.90%	0.90%	0.90%	0.90%	1.13%	1.13%	0.90%	0.90%	0.90%
<b>Actuarial Experience</b>									
Return on Market Value	14.97%	15.11%	(5.77%)	(6.22%)	(12.39%)	(12.67%)	12.93%	12.98%	11.78%
Return on Actuarial Value	3.50%	3.80%	6.70%	6.50%	6.80%	6.50%	11.90%	11.70%	14.70%
Salary Increase	4.90%	6.60%	4.40%	5.80%	4.80%	6.80%	6.40%	8.40%	1.10%
Inflation	1.81%	1.81%	3.55%	3.55%	3.75%	3.75%	3.10%	3.10%	2.63%
Growth in Membership	0.02%	0.02%	(0.24%)	(0.24%)	3.70%	3.70%	1.87%	1.87%	1.38%
COLA <sup>4</sup>	\$1.18	3.00%	\$1.14	3.00%	\$1.11	3.00%	\$1.08	3.00%	\$1.05

Note: See footnotes at the end of this section

**Historical Data**

(Continued)

		Historical Data											
		1999											
		2003	Plan 2/3 <sup>2</sup>	2002	Plan 1	Plan 2/3 <sup>2</sup>	2001 <sup>1</sup>	Plan 1	Plan 2/3 <sup>2</sup>	2000	Plan 1	Plan 2/3 <sup>2</sup>	1999
<b>SERS Contribution Information</b>													
<b>Funded Status</b>		N/A	7.56%	N/A	3.64%	N/A	1.74%	N/A	1.22%	N/A	N/A	N/A	
Employer Rate	N/A	3.51%	N/A	2.49%	N/A	1.10%	N/A	0.46%	N/A	N/A	N/A	N/A	
<b>Credited Projected Liability</b>	N/A	\$1,121	N/A	\$899	N/A	\$747	N/A	\$1,091	N/A	N/A	N/A	N/A	
<b>Market Value of Assets</b>	N/A	\$1,339	N/A	\$1,157	N/A	\$1,230	N/A	\$1,790	N/A	N/A	N/A	N/A	
<b>Actuarial Value of Assets</b>	N/A	\$1,546	N/A	\$1,519	N/A	\$1,472	N/A	\$1,853	N/A	N/A	N/A	N/A	
<b>Unfunded Liability</b>	N/A	(\$425)	N/A	(\$620)	N/A	(\$724)	N/A	(\$762)	N/A	N/A	N/A	N/A	
<b>Funded Ratio</b>	N/A	137.87%	N/A	169.02%	N/A	197.00%	N/A	170.00%	N/A	N/A	N/A	N/A	
<b>Participant Data</b>													
Number of Actives	N/A	49,214	N/A	49,791	N/A	48,347	N/A	47,725	N/A	N/A	N/A	N/A	
Total Annual Salaries	N/A	\$1,133	N/A	\$1,086	N/A	\$1,004	N/A	\$1,012	N/A	N/A	N/A	N/A	
Number of Terminated Vested	N/A	3,550	N/A	2,545	N/A	1,566	N/A	733	N/A	N/A	N/A	N/A	
Number of Terminated, Not Vested	N/A	4,232	N/A	3,553	N/A	2,717	N/A	1,461	N/A	N/A	N/A	N/A	
Number of Retirees and Beneficiaries	N/A	1,042	N/A	622	N/A	269	N/A	27	N/A	N/A	N/A	N/A	
Total Annual Benefits	N/A	\$5	N/A	\$3	N/A	\$1	N/A	\$0	N/A	N/A	N/A	N/A	
<b>Assumptions</b>													
Valuation Interest Rate	N/A	8.00%	N/A	8.00%	N/A	5.90%	N/A	N/A	N/A	N/A	N/A	N/A	
Salary Increase	N/A	6.20%	N/A	6.20%	N/A	3.40%	N/A	N/A	N/A	N/A	N/A	N/A	
Inflation <sup>3</sup>	N/A	3.50%	N/A	3.50%	N/A	3.50%	N/A	N/A	N/A	N/A	N/A	N/A	
Growth in Membership	N/A	1.25%	N/A	1.25%	N/A	0.94%	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Actuarial Experience</b>													
Return on Market Value	N/A	15.12%	N/A	(6.26%)	N/A	(8.66%)	N/A	N/A	N/A	N/A	N/A	N/A	
Return on Actuarial Value	N/A	1.30%	N/A	2.90%	N/A	2.50%	N/A	N/A	N/A	N/A	N/A	N/A	
Salary Increase	N/A	5.80%	N/A	6.30%	N/A	3.40%	N/A	N/A	N/A	N/A	N/A	N/A	
Inflation	N/A	1.81%	N/A	3.55%	N/A	3.75%	N/A	N/A	N/A	N/A	N/A	N/A	
Growth in Membership	N/A	(1.16%)	N/A	2.99%	N/A	1.30%	N/A	N/A	N/A	N/A	N/A	N/A	
COLA <sup>4</sup>	N/A	3.00%	N/A	3.00%	N/A	3.00%	N/A	N/A	N/A	N/A	N/A	N/A	

Note: See footnotes at the end of this section

**Historical Data**  
*(Continued)*

	(Dollars in millions) LEOFF	Historical Data									
		2003		2002		2001 <sup>1</sup>		2000		1999	
		Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2
<b>Contribution Information</b>											
Employer Rate	0.00%	4.32%	0.00%	3.84%	0.00%	3.03%	0.00%	2.41%	0.00%	3.46%	
State Rate	0.00%	2.88%	0.00%	2.57%	0.00%	2.02%	0.00%	1.61%	0.00%	2.31%	
<b>Employee Rate</b>	0.00%	7.20%	0.00%	6.41%	0.00%	5.05%	0.00%	4.02%	0.00%	5.77%	
<b>Funded Status</b>											
Credited Projected Liability	\$4,282	\$2,194	\$4,265	\$1,937	\$4,160	\$1,668	\$4,010	\$1,528	\$4,136	\$1,408	
Market Value of Assets	\$4,380	\$2,541	\$4,060	\$2,136	\$4,578	\$2,210	\$5,260	\$2,378	\$5,460	\$2,288	
Actuarial Value of Assets	\$4,803	\$2,740	\$5,095	\$2,646	\$5,369	\$2,576	\$5,440	\$2,459	\$5,150	\$2,163	
Unfunded Liability	(\$521)	(\$547)	(\$830)	(\$709)	(\$1,209)	(\$907)	(\$1,430)	(\$931)	(\$1,014)	(\$755)	
Funded Ratio	112.18%	124.91%	119.45%	136.62%	129.00%	154.00%	136.00%	161.00%	125.00%	154.00%	
<b>Participant Data</b>											
Number of Actives	991	14,560	1,147	14,011	1,315	13,585	1,499	13,133	1,743	12,713	
Total Annual Salaries	\$71	\$967	\$80	\$902	\$87	\$831	\$95	\$780	\$106	\$725	
Number of Terminated Vested	14	439	22	376	29	303	31	248	40	216	
Number of Terminated, Not Vested	84	1,186	90	1,137	94	1,051	92	940	93	875	
Number of Retirees and Beneficiaries	8,054	316	7,987	244	7,894	184	7,780	143	7,623	100	
Total Annual Benefits	\$270	\$5	\$262	\$3	\$248	\$2	\$235	\$2	\$221	\$1	
<b>Assumptions</b>											
Valuation Interest Rate	8.00%	8.00%	8.00%	5.90%	5.90%	8.00%	8.00%	8.00%	7.50%	7.50%	
5.90%	7.70%	4.50%	7.80%	4.40%	5.80%	4.00%	4.00%	4.00%	4.00%	4.00%	
3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	
1.25%	1.25%	1.25%	1.25%	0.94%	0.94%	1.25%	1.25%	1.25%	1.25%	1.25%	
<b>Actuarial Experience</b>											
Return on Market Value	15.00%	15.13%	(5.88%)	(6.31%)	(9.65%)	(9.77%)	0.49%	0.37%	18.34%	18.54%	
Return on Actuarial Value	(0.50%)	0.60%	(0.30%)	0.10%	2.10%	2.00%	10.20%	9.80%	17.00%	16.60%	
Salary Increase	2.90%	4.80%	4.40%	7.00%	2.50%	4.60%	2.50%	5.90%	3.90%	3.90%	
Inflation	1.81%	1.81%	3.55%	3.55%	3.75%	3.75%	3.10%	3.10%	2.63%	2.63%	
Growth in Membership	2.59%	2.59%	1.73%	1.73%	1.83%	1.83%	1.22%	1.22%	4.33%	4.33%	
COLA <sup>4</sup>	1.81%	3.00%	3.55%	3.00%	3.75%	3.00%	3.10%	3.10%	2.63%	2.63%	

Note: See footnotes at the end of this section

**Historical Data**

(Continued)

	Historical Data							1999
	2003	2002	Plan 1	Plan 2	2001 <sup>1</sup>	2000	Plan 1	Plan 2
<b>(Dollars in millions)</b>								
<b>WSP</b>	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2
<b>Contribution Information</b>								
Employer Rate	4.51%	4.51%	0.00%	N/A	0.00%	N/A	0.00%	N/A
Employee Rate	4.51%	4.51%	2.00%	N/A	2.00%	N/A	2.00%	N/A
<b>Funded Status</b>								
Credited Projected Liability	\$540	N/A	\$508	N/A	\$483	N/A	\$468	N/A
Market Value of Assets	\$608	N/A	\$551	N/A	\$608	N/A	\$688	N/A
Actuarial Value of Assets	\$664	N/A	\$689	N/A	\$712	N/A	\$712	N/A
Unfunded Liability	(\$124)	N/A	(\$180)	N/A	(\$229)	N/A	(\$244)	N/A
Funded Ratio	122.99%	N/A	135.49%	N/A	147.00%	N/A	152.00%	N/A
<b>Participant Data</b>								
Number of Actives	1,045	34	1,035	N/A	1,027	N/A	1,013	N/A
Total Annual Salaries	\$65	\$1	\$63	N/A	\$60	N/A	\$58	N/A
Number of Terminated Vested	32	0	33	N/A	26	N/A	21	N/A
Number of Terminated, Not Vested	20	0	17	N/A	14	N/A	12	N/A
Number of Disabled Members <sup>5</sup>	61	0	62	N/A	63	N/A	63	N/A
Number of Retirees and Beneficiaries	735	0	718	N/A	696	N/A	672	N/A
Total Annual Benefits	\$25	\$0	\$24	N/A	\$22	N/A	\$20	N/A
<b>Assumptions</b>								
Valuation Interest Rate	8.00%	N/A	8.00%	N/A	5.90%	N/A	8.00%	N/A
Salary Increase	7.00%	N/A	7.10%	N/A	5.10%	N/A	4.00%	N/A
Inflation <sup>3</sup>	3.50%	N/A	3.50%	N/A	3.50%	N/A	3.50%	N/A
Growth in Membership	1.25%	N/A	1.25%	N/A	0.94%	N/A	1.25%	N/A
<b>Actuarial Experience</b>								
Return on Market Value	15.03%	N/A	(5.99%)	N/A	(9.68%)	N/A	0.46%	N/A
Return on Actuarial Value	(0.20%)	N/A	(0.20%)	N/A	2.10%	N/A	10.10%	N/A
Salary Increase	3.90%	N/A	5.20%	N/A	3.90%	N/A	3.80%	N/A
Inflation	1.81%	N/A	3.55%	N/A	3.75%	N/A	3.10%	N/A
Growth in Membership	4.25%	N/A	0.78%	N/A	1.38%	N/A	4.65%	N/A
COLA <sup>4</sup>	3.00%	N/A	3.00%	N/A	3.00%	N/A	2.00%	N/A

Note : See footnotes at the end of this section

**Footnotes for Historical Data Section**

<sup>1</sup>For the 2001 valuation, the salary, interest, and growth rates were not annualized. They reflect the actual valuation period of nine months (15 months for TRS).

<sup>2</sup>Plan 3 members do not contribute to the defined benefit plan

<sup>3</sup>Based on the assumption for prior year's CPI: Urban Wage Earners & Clerical Workers, Seattle-Tacoma-Bremerton, WA - All Items

<sup>4</sup>PERS 1 & TRS 1 are paid a Uniform COLA. Amounts are \$/month/year of service. Two gain sharing payments were made: \$0.10 on 7/1/1998, and \$0.28 on 1/1/2000.

*LEOFF 1 COLA is exactly the CPI. All others are based on the CPI (3% maximum per year).*

<sup>5</sup>WSP Disability Benefits are provided outside of pension funds

## Glossary

**Actuarial accrued liability:** Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the present value of fully projected benefits attributable to service credit that has been earned (or accrued) as of the valuation date.

**Actuarial gain or loss:** Experience of the plan, from one year to the next, which differs from that assumed will result in an actuarial gain or loss. For example, an actuarial gain would occur if assets earned 10% for a given year since the assumed interest rate in the valuation is 8%.

**Actuarial value of assets:** The value of pension plan investments and other property used by the actuary for the purpose of an actuarial valuation (sometimes referred to as valuation assets). It is common for actuaries to select an actuarial valuation method that smoothes the effects of short-term volatility in the market value of assets.

**Normal cost:** Computed differently under different funding methods, the normal cost generally represents the portion of the cost of projected benefits allocated to the current plan year. The employer normal cost is the total normal cost of the plan reduced by employee contributions.

**Present value of credited projected benefits:** The actuarial accrued liability computed under the Projected Unit Credit (PUC) funding method.

**Present value of fully projected benefits:** Computed by projecting the total future benefit cash flow from the plan, using actuarial assumptions (i.e., probability of death, retirement, salary increases, etc.), and then discounting the cash flow to the valuation date using the valuation interest rate.

**Projected Unit Credit (PUC) Funding Method:** The PUC funding method is a standard actuarial funding method. The annual cost of benefits under PUC is comprised of two components:

- Normal cost; plus
- Amortization of the unfunded actuarial accrued liability.

The PUC normal cost is the estimated present value of projected benefits to be earned in the current plan year.

**Unfunded actuarial accrued liability:** The excess, if any, of the actuarial accrued liability over the actuarial value of assets. In other words, the present value of benefits earned to date that are not covered by plan assets.